DOCUMENT RESUME

ED 047 601 HE 001 966

AUTHOR	Grignon, C.; Passeron, J. C.
TITLE	French Experience Before 1968. Case Studies on Innovation in Higher Education.
INSTITUTION	Organisation for Economic Cooperation and Development, Paris (France).
PUB DATE	70
NOTE	127p.
AVAILABLE FROM	OECD Publications Center, Suite 1207, 1750 Pennsylvania Ave., N.W., Washington D.C. 20006 ($3.75)
EDRS PRICE	EDRS Price MF-$0.65 HC-$6.58
DESCRIPTORS	Curriculum Development, *Educational Change, *Educational Innovation, Enrollment, Enrollment Trends, Equal Education, *Foreign Countries, *Higher Education, *Innovation
IDENTIFIERS	*France

ABSTRACT

This volume is the fourth in a series of case studies published by the Organization for Economic Cooperation and Development. Chapter 1 discusses the aims of the study, including the concepts of innovation and change, the role of pilot experiments in the development of the university system, and the methods used for this critical analysis of French Faculty reform. Chapter II deals with the sociological context of the reforms, including the situation and scope of Faculty reform, the place and role of the Faculties in French higher education, in a system dominated by the Grandes Ecoles, and the "crisis in the university" as viewed by the public initiators of reform, and the reformers, and the resistance and opposition to these reforms. Chapter III discusses reform and the growth in enrollments in terms of enrollment and the incentive for reform, some effects of reform on Faculty enrollments, and the effects of reform on (1) the size of the establishment and (2) university architecture. Chapter IV discusses the effects of reform on the democratization of recruitment and the present inequality of access to higher education in relation to social origin and sex. Chapter V deals with reform and the organization of higher education. The appendices include statistics of student population trends in France and the contents of the reforms proposed for the Faculties of Arts and Science in June 1966. (AF)

ED0 47601

CASE STUDIES
ON
INNOVATION IN HIGHER EDUCATION

french experience before 1968

by
C. GRIGNON and J. C. PASSERON
CENTRE DE SOCIOLOGIE EUROPÉENNE, PARIS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

HE001966

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

1970

The Organisation for Economic Co-operation and Development was set up under a Convention signed in Paris on 14th December 1960 by the Member countries of the Organisation for European Economic Co-operation and by Canada and the United States. This Convention provides that the OECD shall promote policies designed:

- *to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the world economy;*
- *to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development;*
- *to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.*

The legal personality possessed by the Organisation for European Economic Co-operation continues in the OECD which came into being on 30th September 1961.

The members of OECD are Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

FOREWORD

Whereas in the nineteen-fifties and the early sixties, the notion of "educational investment" attracted the greatest attention, it is now increasingly recognized that educational systems in general, and higher education in particular, cannot adequately respond to the needs of the economy and society unless they are subjected to more or less profound adaptations implying equally important innovations. Thus, in many ways, "innovation" becomes the key concept in the development of education of the present and coming decades.

Innovation is not of course required or advocated for its own sake, but should be understood as a means for fulfilling functions or resolving problems of an urgent nature and which have so far been neglected. The term "innovation" as it is used here, and as distinct from "change", implies therefore purposeful orientation.

The subject covers a very wide range of topics. Innovations in practically all educational domains can be considered: curriculum, teaching methods, internal structures, administration, equipment, etc. Obviously, no single study can cover more than a fraction of this vast area and an appropriate delimitation of the field of inquiry is indispensable. It was therefore decided that a set of case-studies on innovations as introduced by a representative sample of major overall reforms of higher education and in some of the newly created universities represented the most suitable approach to a study of this problem.

It does not follow that a new university is necessarily an innovating university, or that an overall reform need be, in all circumstances, of a radically innovating nature. Furthermore, many important innovations — of curricula or of teaching methods for example — can be and are being introduced in existing universities and without calling for the promulgation of an overall reform. The fact remains, however, that in most cases these are the two basic tools used to implement innovation in the system as a whole or in some of its parts.

It is in this context that the OECD Committee for Scientific and Technical Personnel decided to include in its current programme a number of case-studies concerning problems of innovation in higher education in Member countries.

The present volume on French experience before 1968 is the fourth of this series of case-studies*. It expresses the views of the authors and not necessarily those of the Organisation or the French Government.

---

* The other three are: *New Universities in the United Kingdom, Three German Universities, Reforms in Yugoslavia.*

COMMON OUTLINE FOR THE PREPARATION OF CASE-STUDIES

The following general guidelines were given to the authors:

1. The case-studies should not be developed in terms of mere descriptions (of a particular reform or institution) or historical accounts; *they should be analytical and endeavour to present a critical examination,* the responsibility for which shall lie with the respective author(s).

2. The case-studies should represent a combination of an *institution- and problem-oriented approach* centred around the phenomenon of innovation. It is not the new institutions or reforms *per se* which should be reviewed and analysed and the case-studies should not engage in a theoretical discussion on problems of higher education, but emphasis should be put on the question of how the selected institutions or reforms innovate with regard to the particular problems of the common outline.

3. Each of the case-studies should deal with only a limited number of institutions or reforms, although in some cases a wider area may have to be covered, i.e. the inclusion of innovations taking place within other institutions, old or new. Such an extension would be justified in particular if the selected new institutions or reforms do not provide a sufficiently representative and significant picture of the innovating process as a whole.

4. Particular attention should be paid to innovations which have been in operation sufficiently long to provide the necessary elements for an adequate evaluation of their effectiveness. This evaluation should deal both with the intended and the unpredicted effects of the innovation. Where the time-factor does not allow for such evaluation, the analysis should concentrate on the declared or implicit intention of the innovators and also on any public discussions they may have generated.

5. An analysis should be made of the rationale behind all of the innovations and consideration given to such questions as to who were the initiators and what groups or factors provided support for or resistance to the innovations.

6. The common outline should be considered as a flexible framework; authors remain free to decide where, in view of the case considered and of its specific national or local context, the emphasis should lie, which points should be developed in depth and which should be discussed only briefly or omitted altogether. Many, if not all, of the points of the common outline are closely interconnected, possibly even overlapping. Given the

4

nature of the subject, these interconnections are inevitable and their analysis will throw light on the innovating process as a whole.

The following common outline was suggested to all authors of case-studies on innovation in higher education, as undertaken within the programme of OECD's Committee for Scientific and Technical Personnel (CSTP). This outline was drawn up at a meeting of the Secretariat of OECD and the authors of the first five case-studies in May 1967.

A. *INTRODUCTION*

Specific objectives, scope of study, methods and data used, limitations.

B. *GENERAL CONTEXT*

i) Short overall description of institutions or reforms selected for study;

ii) Their place in the global context of the society and of the education system of the country concerned (including considerations on the status of the new institutions in relation to older establishments, e.g. problems of "upward mobility" of institutions of higher education);

iii) Factors and circumstances which led to their creation or promulgation; initiators, protagonists and supporting groups; resistance and opposition.

C. *PROBLEM-ORIENTED ANALYSIS*

a. *Coping with Increased Numbers*

There can be no doubt that this is the most important problem in the development of almost all higher education systems. In the framework of the case-studies, questions of the following type should be examined:

- To what extent and in what sense was the promulgation of reform X — the creation of Institution(s) Y — directly motivated by the need to cope with the past or projected quantitative expansion of enrolments? (Was the pressure of numbers a primary or a secondary motive?) What statistical evidence can support the answer to this question and how has implementation of the reforms — or the building-up of the institution(s) — responded to original quantitative expectations?
- In case-studies on new institutions the problem of *size* should also be examined: what rationale, and other factors, determined the decision on the size of the new institution(s)? How is the problem of numbers being solved within the framework of the new institution(s) (e.g. subdivision of the institution in smaller more or less autonomous units as in the British collegiate or in the American cluster-college system)? What is the actual and projected rate of growth (slow or fast) of the new institution(s) and on what rationale is this growth rate based?
- In what way has the policy concerning the size of new institutions been translated into new architectural and building concepts?

b. *Equality of Opportunity*

The higher education systems of all OECD countries have to respond not only to the sheer pressure of numbers but also to the requirements of a more equal participation of the different social classes and population groups, of a better geographic distribution (regional), and of a better participation according to sex.

- To what extent do the analysed institutions or reforms provide new answers to these preoccupations? More specifically, have the reforms or the institutions under review been innovative with regard to admission requirements (problem of access to higher education), with respect to scholarship and other student welfare policies? Have any new measures been introduced facilitating not only access of students from under-privileged classes or population groups to higher education but also strengthening the chances of success of these students? To what extent does the location of new institutions respond to requirements of a better geographic distribution of post-secondary establishments (problems of the " university map ")?

c. *Content and Structure of Studies, Interdisciplinary Approach*

Problems falling under this heading are widely discussed, and new solutions are being introduced, in all OECD countries. In a certain sense it might even be said that the most striking features of new institutions of higher learning, i.e. the most apparent deviations from the traditional pattern, lie in this field: creation of interdisciplinary programmes, combined degrees; obligation or possibility for students to take courses belonging to different disciplines (major, minor or supporting subjects); obligation or possibility for teachers to belong to two or more constituent units of the University, etc.

- What is the rationale behind this type of innovation introduced by the new institution(s) or reform(s)? How were the programme, plan and length of studies changed (curriculum reform)? Has a new pattern of examinations (degrees) been developed? Does the available experience show that original expectations could be fulfilled? What difficulties arose and/or how was the arrangement transformed under the influence of unforeseen factors and circumstances?
- Did the new curricula and the new structures of studies bring about new architectural and building concepts? Did they have an influence on a better utilization of buildings?

d. *Specialization of Institutions of Higher Learning*

The question is more and more widely raised as to whether a single institution of higher learning can offer courses in more than a few subject areas. In particular, many of the new universities try to specialize in a limited number of areas. At the level of higher education systems as a whole, the issue is not only specialization by field of study but differentiation according to levels, geographic location and functions (e.g. creation of short cycle higher education).

- Has such a type of specialization taken place in the institutions under review and, if so, what were the criteria for the choices made? Is there any relation between a particular specialization and the geographic location of a given new institution?
- Do the analysed overall reforms contain any significant proposals such as the creation or strengthening of a new type of higher education

functionally differentiated from the traditional types, and what were the rationale and the factors which led to the solution adopted?

e. *Organisational Structures, Institutional Autonomy, Administration and Management*

In many countries the existing organisational structures (e.g. division of universities into faculties) are considered as totally inadequate and innovations in this field, together with those concerning the interdisciplinary approach, appear usually as the most revolutionary aspect of the new institutions. Related problems concern responsibilities of members of the academic staff, administration and management of institutions of higher learning as well as problems of institutional autonomy, of academic freedom and of State-University relations.

- What new organisational structures have been introduced (horizontal and vertical units and their interrelations)? What is the degree of organisational autonomy of the new units (on the one hand, internally, within the framework of the institution, and, on the other externally, in relation to the outside world)?
- What new approaches, if any, have the new institutions or the overall reforms developed towards the perennial question of university autonomy? Have the new institutions or reforms developed some new type of relationship between State and University, and if so, what were the consequences in the field of co-ordination of the new institutions with the rest of the higher education system? Have the new teaching methods or the new content of studies in some way modified the traditional concept of individual academic freedom ("Lerfreiheit")?
- How have the roles (authority, rights and responsibilities) of the various categories of the academic staff, (heads of department, chair holders, middle and junior staff level) been modified as compared with the traditional patterns? Can one speak of a new role of the faculty in the decision-making process in general and in the process of innovation in particular?
- What new administrative mechanisms have been set up? Are new scientific methods of administration (e.g. computer techniques) being extensively used?

f. *Recruitment and Status of Teachers*

For many countries the lack of qualified teachers represents the major bottleneck in the present and future development of higher education. A solution to this problem might depend, to a large extent, on better recruitment policies, improved salary conditions and career prospects. A related issue arises in connection with the instructional effectiveness of university teachers, and the criteria used for the appointment of such teachers.

- Have the institutions or reforms under review introduced new solutions in this field? Are candidates for teaching jobs sought outside the sectors which were traditionally supplying academic personnel (e.g. in industry)? Are conditions of employment of foreign teachers made easier? Have minimum academic requirements for employment (degrees, publications) changed and have criteria of teaching performance been adopted in the selection of staff?

g. *Teaching and Research*

One of the major criticisms made of higher education in most of the OECD Member countries refers to the balance between its teaching and research functions, to insufficient linkages between the two, to inappropriate conditions in which one or the other (if not both) have to be pursued and, implicitly or explicitly, to the connected problems of relations between undergraduate and graduate studies. Innovations in this area may pertain to numerous aspects and organisational components of the higher education system.

- How, in general, is the relationship between teaching and research and between undergraduate and graduate studies envisaged in the new institutions or reforms? What practical measures have been taken in the field of curriculum and degree requirements to implement these general principles? What arrangements have been made with a view to integrating (or differentiating) the teaching and research functions of the academic staff? If, in the older establishments major differences exist in prestige and working conditions between those occupied mainly in teaching (of undergraduates) and those in research (or work with graduates), have the new institution(s) or reform(s) changed this situation? How do enrolment growth rates (actual and projected) at the undergraduate level compare with those at the graduate level? Have any special arrangements been made to promote fundamental research as distinct from applied research? Is there any special effort being made with a view to training research workers ("teaching of research")? If the institutions and reforms under review are fostering research contracts with outside bodies (government, industry), what are the overall effects of this new relationship which is thus being built into higher education establishments?

h. *Organisation and Methods of Teaching; Teacher-Student Relations*

It is very often said that one of the major weaknesses in present higher education systems is the lack of contact between professor and student, in other words, the depersonalization of higher education. Many of the innovations introduced (both by the new institutions and by overall reforms) are intended to remedy this situation. The most obvious solution is to improve the teacher/student ratio, but this, for financial and other reasons, is also the most difficult solution and, in any case, only a partial one. Much will depend on the teaching methods: "cours magistraux", team teaching, tutorial system, seminar and small group work, utilization of new teaching media, the amount of time which the different categories of teachers actually devote to students both within and outside the class periods or formal "office hours", etc.

- To what extent does the teacher/student ratio (overall and by field of study) in the new institutions differ from the ratios in the older establishments? Can a more sophisticated indicator be established, comparing, for the traditional and new institutions, the size of classes, the length of time during which each student is in contact with his teachers, the number of courses (seminars, lectures), given by the various categories of teachers ("density of teaching")? What is the relative importance of formal and informal, organised and unorganised, contact between student and teacher?

- Which of the above-mentioned teaching methods (large-class lectures, seminars, tutorials, etc.) or what combination are given emphasis? Which method or combination is considered most and least effective according to fields and levels of study (optimum size of class)? What role has been assigned to new teaching media? What is the new or proposed structure of the teaching staff (number in senior, middle and junior level categories and their respective roles with regard to students)? What are the new arrangements with respect to student orientation and counselling?
- What physical facilities have been provided to facilitate closer contacts between teachers and students?

i. *Role and Status of Students in the Academic Community*

Two types of problems should be raised under this point: *a*) those concerning the participation of students in the decision-making process within their respective universities or other institutions of higher education, and *b*) those concerning their living conditions, residence, and material welfare in general.

- What innovations concerning these fields have been introduced in the institutions or reforms analysed? Are the new institutions deviating from the traditional pattern, for example in respect to the role of students in the determination of the structure and content of programmes or of admission requirement? What mechanisms are being used to ensure increased student participation in the decision-making process? Did these innovations have any important effect on the phenomenon of "students' unrest"?
- To what extent do students participate in the innovation process itself; by what means?
- What was the rationale for deciding that the institutions under review should be resident or non-resident establishments, with or without a campus? Why has a particular type of residence (e.g. collegiate versus simple hall of residence) been adopted. How has the relation between resident and non-resident students been solved? How have the connected architectural and building problems been solved? What other innovations have been introduced concerning the material conditions of students (part-time employment, loans)?

j. *Higher Education and the Outside World*

In many countries a major complaint about higher education is the latter's relative isolation from the outside economy and society in general, and from industry in particular. Modern higher education establishments should in this respect fulfil, it is said, several types of functions all of which, in a certain sense, may be grouped under the heading "Public Service Concept". This implies a more active role in such areas as adult and continuing education, extension services, research contracts with government and industry, etc. But successful innovations in these fields might often require a radical change in the prevailing idea of the university, i.e. in the concept of its place and role within society.

- Do the new institutions or reforms embody a new concept of the functions of higher education within society?

9

- What contacts have been established between the new institutions of higher learning and the surrounding community? Which groups and sectors of the economy and society appeared as most (least) willing to enter into co-operative arrangements with the new institutions? To what extent and in what way could the new institutions find support (e.g. research grants, scholarships, equipment) in industry and, *vice versa,* what new services are they providing for industrial firms (e.g. refresher courses)?
- Has a new approach to adult and continuing education been developed?
- Have extended linkages with the outside world led to any unforeseen problems and difficulties? Did the creation of the new institutions have a latent stimulating effect on the surrounding community (not directly related to the organised and institutional contacts, e.g. creation of various new services, shops, cultural activities, entertainment)?

k. *Evaluation and Planning*

Need for improvement in these areas is felt very widely. New techniques are being developed (e.g. systems analysis) and special mechanisms are being built into new institutions or reformed systems (planning and/or evaluation units) in order to fulfil this need.

- What are the respective solutions implemented in the institutions or reforms under review? Is self-evaluation and self-study considered as an integral part of the administration and planning of the new institutions? What difficulties had or have to be overcome in order to strengthen the planning process (at the level of the institutions or of the system)? What measures, if any, have been taken to ensure compatibility between institutional and national planning objectives?

l. *Cost and Financing*

Most if not all of the innovations analysed have cost and financial implications which should be examined. This can be done either in connection with almost all the eleven preceding problem areas or under a special separate heading. If the former solution is adopted, there should be a summing-up section on this point. The types of questions to be raised in both instances are as follows:

- Have the different innovations generated additional or increased expenditure or, on the contrary, have they produced savings or decreased unit costs? Have they made new financial resources available (e.g. innovations in the field of university-industry relations)? How do the overall costs and financing mechanisms of the new institutions compare with those of the older establishments?

D. *CONCLUSION*

Summary of main findings of the study with particular reference to the most important innovations encountered.

CONTENTS

I. INTRODUCTION: INNOVATION AND THE EDUCATIONAL SYSTEM. AIMS OF THE STUDY 17
- 1. Innovation and Change 17
- 2. The Role of Pilot Experiments in the Development of the University System 18
- 3. The Limits of a Critical Analysis of French Faculty Reform. Methods used 20

II. THE SOCIOLOGICAL CONTEXT OF THE REFORM 27
- 1. Situation and Scope of Faculty Reform 27
- 2. The Faculties in the French University System: Scope of a Reform confined to the Faculties 33
- 3. The "Crisis in the University" as viewed by the Public. Initiators of Reform and Reformers. Resistance and Opposition 35

III. REFORM AND THE GROWTH IN ENROLMENTS 41
- 1. Introduction: Enrolments and the Incentive for Reform. The Situation in the Various Disciplines 41
- 2. The Growth in Enrolments and its Factors: Some Basic Data 46
- 3. Observable or Foreseeable Effects of Reform on the Trend of Faculty Enrolments 49
- 4. Evolution of the Educational System and Size of Establishments 52
- 5. The Changes in the Educational System, and University Architecture . . . 61

IV. REFORM AND THE DEMOCRATIZATION OF RECRUITMENT . . . 65
- 1. Introduction: The Ideology of Democratization Facing the Test of Reality 65
- 2. Inequality of Access to Higher Education in Relation to Social Origin . . 69
- 3. The Inequality of Access to Higher Education in Relation to Sex 83
- 4. Conclusion: Democratization and "Opening up" of the University 86

V. REFORM AND THE ORGANISATION OF HIGHER EDUCATION . . . 95
- 1. Some Traditional Inflexibilities 95
- 2. The Old and the New: Introduction of Novelty into the Old Order and Persistence of the Old in the New 102
- 3. Conclusion: Towards and Applied Strategy: Strength and Vulnerability of the Education System 109

Annexes

I. Statistics of Student Population Trends in France 118

II. Content of the Reforms 131

LIST OF TABLES

1. The Timetable of Reform . . . 29
2. Rate of Increase in Higher Education Enrolments since 1960–61 . . . 47
3. Population Trend and Trend of Enrolment in Higher Education . . . 47
4. Estimated and Actual Enrolments Trends (Faculty Population) . . . 48
5. Trend of Enrolments and Relative Proportions of the Various Disciplines as Compared with Total Enrolments . . . 52
6. Rate of Increase in Enrolments by Discipline as Compared with 1960 and with the Preceding Year . . . 54
7. Trend of Enrolments in University Faculties which have been sub-divided, and Rates of Increase and Decrease in these Enrolments . . . 59
8. Average Number of Students in the Faculties, by Discipline . . . 60
9. Number of Small and Large Faculties for the Various Disciplines in 1962, 1966 . . . 60
10. Social Origin of French Students between 1961–62 and 1965–66 . . . 70
11. Trend of Students' Social Origins in the Various Faculties between 1961 and 1966 . . . 73
12. Trend of Educational Opportunities according to Social Origin and Sex between 1961–62 and 1965–66 . . . 78
13. Classification of Groups according to Educational Opportunity in 1961–62 and 1965–66 . . . 79
14. Women receiving Higher Education in France since 1955 . . . 84
15. Percentage of Women Students in the Various Disciplines . . . 85
16. Number and Proportion of Students claiming Wage-Earning Student Status in 1966 and 1967 . . . 91
17. Number and Proportion of Students without the Baccalauréat entering a Faculty in 1966 and 1967 . . . 92
18. Applications and Admissions to IUT in 1967–68 . . . 108
19. Diploma Level of Applicants accepted for IUT in 1967–68 . . . 109

GRAPHS

1. Trend of Student Numbers between 1900 and 1966 . . . 46
2. Trend of the Relative Proportions of Enrolments in the Four Disciplines between 1956 and 1967 . . . 53
3. Distribution of High Educational Establishments by Size (Number of Students) in 1962 and 1966 . . . 57
4. Distribution by Size of Enrolments in 1961–62 and 1965–66 (Old Faculties) . . 58
5. Trend of the Proportions of Certain Socio-Occupational Groups in Higher Education between 1961 and 1966 . . . 71
6. Centres of Interest at the Caen Seminar . . . 110

I

INTRODUCTION: INNOVATION AND THE EDUCATIONAL SYSTEM – AIMS OF THE STUDY

1. INNOVATION AND CHANGE

Whether based on the psychology of creativeness, the psycho-sociology of group co-operation or the sociology of organisation, the thinking which has been going on over the past twenty years on the best way to encourage invention in the various fields of intellectual activity has found in the concept of *innovation* a concept deliberately more precise than that of change. But when one tries to explain what is meant by "innovation" in an educational system it soon becomes clear that its content cannot be defined with equal ease for all branches of social activity.

Innovations are easy enough to define in the case of industrial firms, whose main aim is to achieve a measurable return. Whether we think of a technological innovation (a new device, for example) or an institutional innovation (such as the simplification of a decision-making process), the innovatory nature of the change is expressed objectively and unequivocally in lower cost, improved productivity or increased profit. But in a system such as education, where the social effects are many and have no common measure, it is not so easy to assess the innovatory nature of an institutional change: if we accept those technical inventions which have radically transformed the communication of knowledge – such as the creation and dissemination of the printed book which has greatly helped to reduce illiteracy in European countries – the significance of most of the institutional, pedagogical and even technical changes which affect an educational system is, in view of the many functions such a system is designed to serve, uncertain. This is because their effects are different and sometimes even contradictory, depending on whether we choose to assess their effectiveness by the increase in the number of students, the democratization of recruitment in the schools, more efficient administration, the lower cost of teaching, the less arbitrary exercise of professorial authority or the improvement in the services rendered by the University to industry and, more generally, on whether we related them to the *technical* or the *social* functions of the educational system.

There is thus no uni-dimensional criterion of effectiveness which can be applied to the educational system. The "pedagogical success" of a teaching process is an ambiguous notion whose meaning varies with the criteria used: as we know, the "success" of a teacher – which is all the easier to obtain the more he is prepared to rely on gratuitous virtuosity and rhetorical brilliance — does not necessarily mean that his pupils will be successful in examinations, since, depending on the educational system, success in examinations itself varies in relation to the skills or training they are supposed to confirm or the degree of success achieved in carrying out professional duties; in short, the success of an educational system is not to be confused with the personal success of its teachers, and to speak of the overall effectiveness of an educational institution is to speak in meaningless terms: it would be pointless to try to compare the overall effectiveness of the educational system of an authoritarian State or a theocratic society, whose primary concern is the moral and intellectual integration of the body politic, with the educational system of an industrial society governed by the imperatives of economic development, which gives priority to vocational training at the expense of all other kinds of training, beginning with the transmission and preservation of traditional patterns. It is sufficient to note that with an industrial innovation there is no need for discussion: its success suffices to impose it. But with most of the measures taken to reform French higher education there is no end to the discussion on their innovating or retrograde nature. While the economic enterprise can be defined unequivocally in terms of its function of production and while the industrially efficient and financially profitable innovation proves its competitive worth by being taken up by all firms as soon as it has been adopted by one, this is not true for the educational system. Because university institutions are never subjected to competition of a purely economic type, the incentive effect of successful pilot experiments is always less marked than in the industrial world. It may be argued that the "return" on a pedagogical innovation can be measured in the same way as that on a technical innovation. Why not, for example, compare the rate of examination successes of pupils in a pilot class with those in a conventional class? For the simple reason that there is an obvious difference: the machinery which confirms the efficiency of an industrial innovation does not depend on the firms, whereas the examination system is an integral part of the educational system, and often the most traditional part. While industrial innovation by its very existence questions traditional methods, pedagogical innovation has to prove its worth through an examination system which is itself traditional.

These preliminary remarks have no other purpose than to justify the modesty of the questions which this study endeavours to answer. In view of the theoretical difficulties which beset the concept of innovation in education, we have confined ourselves to examining the observable or foreseeable effects of the reforms which have affected the French Faculties over the past few years in relation both to what was expected from these reforms — insofar as this was perceptible — and to some of the problems which arise objectively for French higher education at its present stage of development.

2. THE ROLE OF PILOT EXPERIMENTS IN THE DEVELOPMENT OF THE UNIVERSITY SYSTEM

It may perhaps be a matter of some surprise that this study should concentrate on reforms on a national scale and the assessment of their statistical effects, and not give a larger place to the analysis of the teaching experiments carried out here and there in a disorganised manner. This is due partly to a real constraint and partly to the method chosen, both deriving from the purpose of the study, which is to examine the working of French higher education as a social system. First, the monolithic nature of the French system allows its officials — insofar as those officials who are the products of the system still have a mind for innovation — only very limited scope, even Deans of Faculties, and that consequently it takes a great deal of optimism or a very undemanding definition of innovation to discover anything resembling it in the day-to-day life of the Faculties. This leaves the marginal areas of French higher education which, being less directly attached to the central administration and sometimes more directly to industry, have in fact some original teaching experience to offer as compared with traditional university teaching. If this field of experiment has not been explored in this study it is because of a sociological principle which we should like to set down at once: as R. Aron pointed out when criticizing the unreality of certain statements at the Caen Seminar, the main part of the conflict between tradition and innovation is manifest *in the existing institutions;* perhaps it would delight teachers or future students if one or two experimental universities were created which might serve as a subject for journalistic reports or as a privileged sphere for experimental teaching, but the fate of the French university is shaped in the Faculties of today despite the widely-held belief in the contagious effect of *avant-garde* experiments.

This is not to deny the incentive function of pioneering work but to draw attention to the fact that *it is in the educational system that such work is least effective,* and this is all the more true where the educational system — as in France more especially — has been able to press further towards the goal of autonomy. The incentive or critical function of innovation is not very marked in education because it is fairly easy to neutralize, the educational system more than any other social system having its own self-immunizing services. The device most frequently used is no doubt to *integrate* the innovation into the logic of the old system. Like those Mexican peasants who continued to wade across the river in the traditional way while making use of the bridge provided by an international organisation by crossing under its shelter as a protection against the weather, the university tends to assimilate, in the true sense of the word, any innovation with what it is supposed to replace. Examples include the creation of the "Master's degree" which, at least in 1967–68, turned out to be no more than a change of name for the old Diploma of Higher Studies (DES). Although according to the texts candidates for the Master's degree had to obtain a certificate and submit a short thesis, students with a first degree were in many cases exempted from the written part of the certificate and encouraged to concentrate their efforts on preparing the thesis. As a result, there is hardly any difference between the Master's degree and the DES. Going further back, the introduction of the third-cycle doctorate in the Faculties of Arts was supposed to provide an alternative to the agrégation for future research workers. In fact, except in subjects such as psychology or sociology where there is no agrégation, the third-cycle doctorate proved a complete failure: most teachers discouraged students from taking this course and accepted only agrégés as candidates for the third cycle; the third-cycle doctorate was regarded as a preliminary to the main thesis and finally as the "equivalent" of the additional State doctorate thesis.

Without going any further into the range of self-protective devices which show the French educational system to be one of the most gifted at making itself independent of outside requirements or criticism, we might also mention the device of *ostensible acceptance* whereby the educational institution disarms innovations it is unable to refuse. Even when adopted unchanged, an innovation is often neutralized by fitting it into a traditional structure that allows it to be disseminated in a harmless form. It was in this way that some conservative teachers were able to safeguard their traditions by borrowing from the "Freinet method", the idea of the school printing shop, but separating it from the rest of the method and "adapting" it to a whole series of routine teaching practices. It was no doubt because the "printing shop" technique could easily be isolated that it could be used in this bold and at the same time reassuring way and given wide acceptance without prejudicing traditional teaching methods. Thus, in the educational system, a neutralized innovation can be put at the service of routine, or be used to camouflage or justify it. It is only when an innovation cannot be neutralized that the traditionalist university seeks to *bottle up* the new institution or reform and isolate it within a "security area"; such for example was the system's reaction to the reform of the Nancy School of Mining.

Pilot laboratory experiments carried out *in vitro* are always, whatever their promoters may do, liable to be used as "alibi-demonstrations" to camouflage and justify the conservatism they are supposed to refute. As such, *avant-garde* educational experiments are of course an object of educational study and an incentive to educational thinking, but it would be misleading to assume that their pedagogical effects can be purely and simply transferred to a university system which has such a built-in power of assimilation as the French one. *The social conditions governing the dissemination and general adoption of an innovation are in any event very different from those of the ideal exemplary innovation.* If we admit that, for innovations to become systematic, they must be incorporated into a real educational system as defined by the social and technical functions which society assigns to it and that it is this real system which gives them their full meaning, we see that it is only by studying the system that we shall tell what innovations are likely to be adopted, how far they will be put into general use and what effect their integration will have on their own development and on that of the system. Just as it is only by studying the teeth of mammals and not everything they might possibly eat that we can determine their feeding habits, so it is only by analysing the structure of the educational system that we can say what innovations it will be likely to select.

3. THE LIMITS OF A CRITICAL ANALYSIS OF FRENCH FACULTY REFORM — METHODS USED

The illusion of unsubstantiated predictions

In view of the recent date of the reforms examined, the material available to the observer consists largely of written or oral statements and more especially of declarations of intention or ideological criticism. Thus, the present position of higher education is perceived and described by the different social groups on the basis of impressions which may often be fallacious. A single example will suffice: the birth of the "Parisian monster" and the increasing concentration of students in Paris are unanimously deplored, whereas the figures show that the proportion of students at the University of Paris as compared with the total number of students has been steadily falling since 1945 from 45.5 % at that date to 36.5 % in 1961 and 30 % in 1967. This unsubstantiated analysis of present and past developments in the university is often accompanied by intuitive prediction: the "effects of reform" are mostly guessed at. Every assessment of the sense and consequences of a particular measure differs according to the group concerned, insofar as the perception of each social group (members of parliament, university authorities, teachers, students) is conditioned by its situation and implicitly oriented by its dominant interests. For each of these groups, the image of the university and its development and of any necessary or unnecessary reforms is at one and the same time based on the optical illusions imposed by a particular situation and uniformly shaped by the weight of those illusions. Although the statements made may be legitimately regarded as a subject of study insofar as the reform becomes reality through the behaviour of its actors, they must not be taken for anything more than they are, and in particular it must not be expected that the declarations of intent of the reformers will give any clue to the principle of the reform.

Objective indicators

In order to stand back as far as possible from the ideological statements now current in France on the crisis in higher education, we have, wherever possible, had recourse to statistical indicators since these alone can provide an objective assessment and a strict measure of the effects of the various reforms. We have tried to assess the consequences of reform as revealed by the statistical data and have made a diachronic analysis of this material in order to compare the quantitative characteristics of the university before and after reform. For instance, in order to assess the consequences of the reform of law studies on the trend of student distribution among the disciplines, we compared the distribution in the various disciplines before and after this reform. Similarly, in order to measure the effectiveness of a reform designed to give wider access to the university, we compared the respective chances, for various groups of students of different social origin and sex, of gaining access to higher education or a particular type of study before and after the reform.

Given the limited scope of this study we have had to confine ourselves to an analysis of the trend of distribution and the most important ratios. We have examined for example the differential trend of enrolments by discipline, the trend of the size of actual teaching units by discipline and according to changes in the educational map, the trend of the distribution of student numbers according to social origin and discipline and according to sex and discipline, the trend of the opportunities of access to higher education for the various student categories according to sex and social origin and the trend of the probability of access by these categories to the various disciplines, as well as other indicators of a similar type.

A more exhaustive or more refined analysis would have called for statistical material which we do not at present possess. Furthermore, the categories for which statistics are available are not very detailed and their heterogeneity probably masks some effects which it might have been most interesting to assess. Lastly, we have no exact information on the professional careers of students. It would have been useful, for example, to compare the careers of Law Faculty students before and after the reform or to measure, for equivalent diplomas, the influence of students' social origins on their "placing" in production. In the absence of this information, we can only guess at the "effectiveness" in terms of vocational training of the various types of study. It is only when a reform — by creating a new type of course, for example — is specifically aimed at adapting the discipline to the necessities of production, as is the case for the reform of law studies, that the progress of its adjustment to labour market needs can be indirectly assessed through the rise in student enrolments in the discipline in question. Similarly, an analysis of the "effectiveness" of the educational system and of the influence of reform on that effectiveness should take account of the objective probability of success of the various categories of students in the different types of examination according to sex, social origin and previous educational record. It should also be possible to measure the influence of reform on student orientations within higher education: e.g. for the Faculties of Arts and Science, we need to know the social and educational characteristics of students who take up long higher studies leading to the Master's degree and of those who are relegated to the short first-degree course.

It is certain that by comparing the statistical data before and after a reform, we run the danger of attributing to the reform effects which result from other factors, or of overlooking effects which are concealed by the unforeseen intervention of other factors. It is no doubt impossible to avoid this risk of error completely in the limited context of a study of this kind; however, in order to reduce the risk to a minimum, the following rules have been observed:

a) ***We have tried to specify the date from which a particular reform began to produce measurable effects.*** A distinction has been made between the legal proclamation of a reform and the date of its actual application. It should be noted that the "effective date" of a reform varies according to the effect we intend to measure and no doubt also according to the categories of students concerned. For instance, as soon as it was announced in 1965, the reform of arts studies contributed towards turning away from this branch of study, at least in Paris, students from the educated classes who were better equipped to spot in advance the disadvantages of the "secondarization" of the first cycle of the university course. The educational implications and, still more, the professional implications of a reform tend to spread around only slowly and there is a certain time-lag before they affect the behaviour of students from the poorer classes. Similarly, it will take several years of effective operation before the influence of the reform on the trend of student enrolments for the third cycle doctorate can be measured. It is not therefore surprising that in the following analysis there are differences between the dates when the various reforms are presumed to become effective.

b) We have tried to assess the impact of the reform over a continuous period and not to compare two isolated points in time. We have refrained from comparing the situation after the reform with the previous situation as though the latter were independent of the past: the previous situation is always judged by reference to a long-term trend in order to isolate the effect of slow-acting permanent or semi-permanent factors from the effect of statutory measures. We are thus justified in assuming that the increase in the proportion of law students in the total number of students after 1962 must be ascribed to the reform of law studies introduced in 1960 since, from 1945, the proportion of law students had been steadily falling.

c) In order to limit still further the risk of error inherent in this method of interpreting concomitant variations, *the respective trends of the various types of data have been constantly compared.* This gave us the means of identifying the hidden effects of factors external to the reforms. Thus, the rise in the proportion of law students might have been due not to the reform itself but to a change in the social composition of the student population through greater representation of social groups not traditionally found in the Faculties of Law: the stability of the social structure of the student population in these Faculties proved this hypothesis to be wrong. Concomitant variations have therefore been interpreted by a process resembling multivariate analysis, though the use made of this method was limited by the type of statistical material available.

Although descriptive statistics could be used without major difficulty in dealing with the reforms in law and medicine, the recent date of the reforms in arts and science made these less easy to deal with as the statistics available were not so complete: at best, they covered only the reform's first year of application (1966–67) so that the situation could be assessed only at one particular moment. Only after a few years' time will it be possible to determine the effects of these latter reforms with greater certainty. On this point, therefore, we could do no more than analyse the opinions of users and the university authorities, formulate hypotheses, look for indications and note down symptoms which can be verified or interpreted only by subsequent analysis.

But although the recent date of the Arts and Science reforms limits the use which can be made of the statistics, it is still possible with the help of numerical indicators to judge at least the conditions under which a reform was introduced, if not its effects. We have therefore endeavoured to see whether there is any relation between the trend of enrolments, or changes in the social structure of the student population in a particular discipline, and the appearance of a given type of reform. Thus, by identifying disequilibria in the educational system through changes in the size and composition of the student population, we can determine the objective function, in the Durkheimian sense, of a given reform. The sociological context of a reform is not irrelevant for anyone who wishes to get at the real content of the reform, which represents not only the conscious answer to recognized problems but also the sub-conscious answer to problems only imperfectly perceived. Thus, reforms in law and medicine, introduced when enrolments in these disciplines were stationary or falling, cannot be put in the same category as reforms in arts or science, introduced during a period of numerical growth in enrolments in these disciplines.

Methods used

a) *Statistical data*

This study is based on statistical data because these provide the objective information without which the comparative method cannot be used. We have not been content simply to collect data, but have also made use of statistical constructs when the argument so required. Annex I contains statistical material showing the trend of student distribution by social origin, sex and discipline since 1962 and in many cases even since 1900; these data have been used to construct the table of chances of access to higher education according to social origin and sex, together with the table of the conditional probability of access to a given type of study.* The indices calculated on the basis of a reference year may also be regarded as an elaboration of the statistical material. In general, we have relegated the raw statistical material to the annex and used specially constructed statistics in the text.

b) *Documentation*

We have assembled information concerning the background and content of the reforms, the intentions of the authorities and the opinions of those concerned and of various professional, political, trade union and other interested circles. We have endeavoured to bring out the main lines of the original problem and to distinguish the general themes on which opinions concur: extent of the rise in enrolments, need to modernize obsolete structures and recognition of an unprecedented crisis in the university. But we have also made an attempt to analyse the points on which opinions diverge, i.e. to define the problems and criticisms pertaining to each category. While the declarations of the authorities indicate the aims explicitly assigned to a particular reform, the disagreement concerning the interpretation of the present situation and the measures it requires, which shows through the apparent agreement and ritual lamentation, provides a clue to the position of the different groups in relation to those aims and reveals the degree of conservatism of the various social groups. An analysis of even the most biased ideological statement, provided it is recognized as such, can provide objective information.

c) *Analysis of the press*

All articles published in October and November 1967 in the newspapers *l'Aurore, le Figaro, l'Humanité, le Monde, Ouest-France, le Parisien libéré* and *La Voix du Nord* were analysed and a rough order of importance was assigned to the various educational problems as seen by the public, or rather, as presented to the public. At the same time, we tried to define approximately the kind of interest which the various social groups show in educational problems. This also gave us indirectly an idea of what the different social categories thought of the university.

---

* See Table 12.

d) *Interviews*

Some 50 interviews were held with students selected according to their subject (science or arts) and their stage of study (first-year students in the first cycle who had no experience of the old system and students reading for a degree who had completed "propédeutique"). We were also able to interview certain authorities.* Although there is a danger here of not gathering the truth about the reform, it should not be forgotten that it is partly through consideration of what the users see in the reform and what they do about it that makes it what it is.

---

* Extracts from these interviews have been published in an OECD Working Paper (DAS/EID/68.45, Paris, August 1968).

II

THE SOCIOLOGICAL CONTEXT OF THE REFORM

1. SITUATION AND SCOPE OF FACULTY REFORM

A sense of unanimity

The immobilism of the University and the inflexibility of its organisation and curricula have been constantly denounced over the past 15 years, until finally denunciation became unanimous and the effects of the rise in enrolments succeeded in rousing even the most conservative academies. University administration, with the range of grotesque or picturesque examples of archaic behaviour it offers is one of the favourite targets of criticism. In fact, for reasons which are not entirely due to the lack of material resources, university administration still relies on artisanal methods even in fields where rationalization would appear to be necessary because of the size of enrolments and premises (time-tables, allocation of lecture rooms, examination accounts, etc.). University organisation in the popular view is increasingly likened to a "patching up", "tinkering up" and "pottering about" process, to such a point that it is well on the way to becoming a comic institution with the help of highly symbolical stereotypes for the educated public, "frolics in the amphitheatre" bid fair to take the place of "larks in the barrack room".

But the apparent unanimity in calling for change might make any reorganisation of Faculty education appear all too easy in the light of an innovatory break with the past, though, in fact, reforms of the extent and type of those which affected French higher education between 1959 and 1967 are by no means a novelty. In reality, higher education has always been in a state of change and transformation ever since the medieval institutions disappeared and since its reorganisation in the 1880s and 90s has shown nothing like the immobility so readily attributed to it by its critics. Admittedly its structure and administrative divisions are the same as those established by the Act of 1896, but throughout the twentieth century the addition of new subjects and changes in the examination system have done more to transform its character and content than all the texts published over the past ten years.* The simultaneous publication of a number of Decrees tends to create a false impression: since they mostly concern only curricula and courses, the changes they introduce are not *new* compared with those introduced continuously and imperceptibly throughout the first half of the century.*

---

* It is quite certain, for example, that the introduction — and this was no easy matter — of a "licence" and later an agrégation in modern literature (well before the reforms introduced under the Fifth Republic) was an innovation much less readily accepted by the university die-hards than the reshaping of the "cycles" which is what by and large the Fouchet reform of the Faculties of Arts boils down to.

The impression of "reform" created by these latest measures, even among those who criticize them, is therefore strongly coloured by the "need for reform", on which unanimity — of a rather ambiguous kind — was finally reached. Although opinions differ about the content of the reforms and how they should be applied and even about the principles involved, no one denies the need for reform. There is no institution, not even the Société des Agrégés, whose very *raison d'être* is the defence of the ties — peculiar to France — between secondary and higher education, which does not admit the principle of reform, even though its fundamental position obliges it in fact to oppose any significant change. At the same time, the pressure exerted by this objective system of diffused expectation is such that no Faculty has been able to evade the obligation of renewal: thus, the reform of science has led to the reform of arts, in spite of the fact that the aims and modes of arts reform are much vaguer than those of Science Faculty reform and can in any case, hardly be said to express a collective desire to meet recognized needs. As the Caen Seminar showed, criticism of the university system came mostly from the teachers in the Faculties of Science and it was they who drew up the list of complaints. No one has ever disputed the need for changes in the arts courses, but there has never been any effective move among teachers in various branches of the Faculties of Arts to formulate their separate ideas on the need for reform in terms of a coherent university policy. The real originality of the recent reforms lies perhaps less in their range and novelty than in the general feeling that they are needed.

The more or less orderly way in which a series of reforms are introduced may be taken as an indication of the degree of coherence of the planning. Seen in this light, the reform of law studies clearly differs from the other reforms: although the main innovation of law study reform was the creation of an economics degree, this change had already been announced five years before with the first move to introduce new subjects — economics and sociology — into the traditional curricula. This early uncertain attempt was followed by regrets: by 1961, even the longer period of study seemed to be in danger. The reform of law studies therefore gives the impression of a series of measures in search of equilibrium.

With the reform of medical studies, the only uncertainty was in the way it was applied. No doubt, the abolition of the preparatory year of physics-chemistry-biology (PCB) and the combination in a single year

---

* It may be briefly recalled that since the changes introduced by: *a*) administrative reforms such as the Act of 10th July 1896 (Louis Liard), combining the Faculties of an academic district into a University, after the 1885 Act had given them legal personality, the French Universities have been almost continually subject to *b*) reforms affecting the content of the education provided through the introduction of new subjects and *c*) reforms concerning the course of study and curricula (creation of the third-cycle thesis, for example) which have been accompanied and sometimes contradicted by *d*) the multiplicity of new research and educational institutions created: Ecole des Chartes in 1821, Ecole Française d'Athènes in 1846, Ecole Pratique des Hautes Etudes in 1868, Ecole Libre des Sciences Politiques in 1872, CNRS in 1939, etc.

Table 1. THE TIME

	LAW	MEDICINE
1954	"Licence" course extended to four years – Creation of practical work – Introduction of new subjects	
55		
56	→ Put into effect	Creation of an interministerial Committee under Professor R. Debré
57		
58		
59	Creation of the licence in economics	Order of 30th December: – creation of the CHU[1] – introduction of "full time" – participation by *all* students in hospital life
1960	→ Put into effect	Put into effect – Abolition of the PCB[2] Period of study reduced to six years
61	Existence of the four-year "licence" apparently threatened	
62	Organisation of 1962 curricula and examinations; retention of the four-year "licence"	Put into effect – Creation of the CPEM[3] Period of study extended to seven years
63		
64		
65		
66	Restrictive measures : not more than three branches to be taken during the first two years. Special scheme for wage-earning students	
67	→ Put into effect	

---

1. CHU: Centres Hospitaliers Universitaires.
2. PCB: Physique - Chimie - Biologie.
3. CPEM: Certificat Préparatoire aux Etudes médicales.

TABLE OF REFORM

SCIENCE	ARTS	
		1954
		55
		56
		57
		58
		59
		1960
		61
		62
		63
		64
		65
– Reorganisation of the Faculty course into three cycles Abolition of the preliminary course (propédeutique); creation of the DUES[4], the new licence and the Master's decree(maîtrise). Introduction of assiduity controls; new forms of orientation. Coming into force in 1966-67 for the first year of the first cycle.	– Reorganisation of the Faculty course into three cycles Abolition of the preliminary course (propédeutique); creation of the DUEL[5], the new licence and the Master's degree (maîtrise). Introduction of assiduity controls; new forms of orientation. Coming into force in 1966-67 for the first year of the first cycle.	66
Complete application of the reform	Complete application of the reform	67

---

[4] DUES: Diplôme Universitaire d'Etudes Scientifiques.

[5] DUEL: Diplôme Universitaire d'Etudes Littéraires.

of the PCB curriculum and the old first year course were failures confirmed by the creation of the CPEM (Certificat préparatoire aux études médicales) and the return to the seven-year course. But however laborious and contradictory these arrangements may seem, they are nevertheless a step towards the stricter application of the principles set out in the Order of 30th December 1959, which were enunciated once only and were not later called in question. Similarly, with the reform of arts and science whose essentials were established *en bloc*, there was no experimental period and no subsequent modification.

The reforms differ not only in the way they are applied but in the way they come into being. They do not derive from the thought and action of the same instigating bodies. For instance, the reform of law studies seems to have been prompted by the pressure of changes in administrative employment and managerial jobs. The reform of medical studies was the work of a committee of experts convened by the Government, more as a result of the desire to make French medical research competitive at international level than because of the pressure of public or professional opinion, which was not greatly interested at that time in the problems of research. In arts and science, the decisions were prepared in comparative secrecy by negotiation between ministerial departments and university pressure groups: although approved or made subject to reservations by many groups or unions, they did not stem directly from a movement of opinion.

Extent and content of the reforms: alteration or innovation?

The extent of the reorganisation of studies varies with the Faculty. The reform of medical and law studies makes undeniable changes in the content and orientation of the vocational training provided by the two Faculties. The institution of university hospital centres is likely to transform medical studies as a whole at all stages of the student's career and even the careers of teachers. Considerable changes have been made in the distribution of subjects, the time spent on observation and the time spent on clinical work. The reform of medical studies even attacks what might have been the most active centres of resistance: by rationalizing at least formally, the competitive recruitment examinations, it destroys the system of co-optation that was the characteristic feature of a corps and an esprit de corps whose misuse had become too flagrant. Similarly, the professional function of the Faculties of Law may be regarded as having been redefined with the creation of the economics degree, leading to the duplication of studies at all levels of the course.*

---

* Most of the changes made since 1954 in the Faculties of Law would seem to derive from the introduction of economics in these Faculties and from the desire of the economists to make economics teaching increasingly independent as a symbol in their eyes of university recognition of economics as a science. If, in spite of their desire to maintain Law Faculty unity and in spite of the power bestowed on them by their status of first occupant, the old-school law-men had first to open the door to the economists and then allow an ever more marked division to develop between law teaching and economics teaching, this was no doubt because the economists were supported in the struggle by rapid changes in the traditional outlets of the Faculties of Law.

But whereas the reforms of medical and law studies are general reforms involving a systematic redefinition of the organisation of studies, arts and science reform, with its limited scope and ambiguous character, seems to proceed from competing and even contradictory principles which, being unable to express themselves or gain ascendance over each other, end up by being mutually restrictive.* They affect the first and second cycles of higher education without touching the strategic institutions which give functional meaning to the system, the Grandes Ecoles and agrégation. Thus, a number of observers have claimed that these reforms were a "victory for the conservatives" since they left the citadels of university conservatism intact.

The reforms examined also differ in structure. While the reform of medical studies represents a notable break in the history of medical teaching insofar as it substitutes one form of organisation for another, the procedure in other disciplines has mainly been to add new elements to an essentially unchanging traditional setup. Thus, the prolongation of the period of study for the "licence" in the Faculties of Law is a compromise which translates into university logic some of the requirements of professional demand. At the same time, the need to give the new economics "licence" proper university status has led to the length of the course being aligned to that of the law "licence". In the Faculties of Arts and Science, the creation of new examinations and degrees such as the DUEL (Diplôme Universitaire d'Etudes Littéraires), the DUES (Diplôme Universitaire d'Etudes Scientifiques) and the Maîtrise is a spectacular measure, at least as regards the *system of titles,* whose symbolical value in the academic world is common knowledge. But this new system of titles does not necessarily imply a break with the old teaching organisation and still less with the *system of traditional attitudes:* between the Maîtrise and the third-cycle doctorate the agrégation remains unchanged. As a general rule, the reform of arts and science studies is a matter of *superimposition* rather than *substitution.*

The most significant contrast from the point of view of the pedagogical and social impact of university reform is finally between the Faculties of Medicine and Law, on the one hand, and the Faculties of Arts and Science, on the other. The reform of law studies is a curriculum reform which introduces new subjects and even new disciplines, while the reform of medical studies makes essential changes in teaching methods by increasing the proportion of hospital work, but both reforms have in common the fact that they relate to extra-University requirements, whether professional demand or research. Science and arts reform, on the other hand, is based on changes in the examination system and the university career. In medicine, the abolition of the PCB, the creation of the CPEM and the reduction followed by the extension of the period of study are secondary phenomena which are explained by the desire to apply the general principles of the December 1959 Order. On the arts side, however, it is the creation of the DUEL and the Maîtrise which have led to secondary changes in curricula. In this sense, the reforms in law and especially in medicine are essentially pedagogical reforms with repercussions on the administrative side, whereas the reforms in arts and science are essentially administrative reforms with repercussions on the teaching side.

---

* See page 50.

2. THE FACULTIES IN THE FRENCH UNIVERSITY SYSTEM: SCOPE OF A REFORM CONFINED TO THE FACULTIES

To appreciate the significance of reforms which affect only the teaching side of the Faculties and sometimes only at certain levels, as in arts and science, it is necessary to remember the place and role of the Faculties in French higher education, i.e. in a system dominated by the dichotomy between the Faculties and the Grandes Ecoles.

Significance of the dual system of higher education: Faculties and Grandes Ecoles

If we accept the formal definition of their function, the Grandes Ecoles in France are vocational training institutions, whereas the Faculties in principle enjoy the privilege of deferring consideration of future occupational requirements to the benefit of a system of instruction whose sole purpose is the transmission of knowledge or the preparation for research. In a society where "education for its own sake" is held in the highest esteem and where the disciplines which are least directly usable in the professional world are given pride of place, it might have been expected that the Faculties would rank first in the hierarchy of university prestige. But this is not in fact the case because the professional aims of the Grandes Ecoles are a surface fiction whose unreality is so widely recognized that it is the source of a number of jokes.* While the Grandes Ecoles represent what might be called the "higher education of higher education" because, in contrast to the Faculties, they have the *privilege of selection*. Grandes Ecoles students are not only selected by the competitive entrance examinations but also pre-selected when accepted for the preparatory classes attached to the lycées. This double screening system enables the Grandes Ecoles to recruit from among the best "products" of secondary education; this *educational élite* is recruited on the basis of university criteria which inevitably owe something to cultural and social criteria and is perfect material for shaping into a *social élite*. The relation between the cultural criteria of social distinction and the technical criteria of university performance obviously varies from one Grande Ecole to another, as, too, does the degree to which the different Grandes Ecoles tend to dissimulate under an academic definition of their function, their real function as instruments perpetuating cultural advantage among the privileged classes or even of recruiting an administrative élite on behalf of the ruling classes. The Ecole Nationale d'Administration, the Ecole Polytechnique and the Ecole normale supérieure are the three most specific combinations of social and technical functions to be found in French higher education. It is perhaps not too much to say that of these three types of institutions it is in the ENA that the social and technical functions are most closely related since the criteria for its entrance examinations and its grading system are no more than the technical expression of its social function of providing a trained and dedicated caste of specialists for the economy and of general practitioners for the machinery of State. It is therefore not surprising that recruitment for the Grandes Ecoles is even more bourgeois than recruitment for the Faculties. Furthermore, the Grandes Ecoles can be sure of recruiting the most talented students insofar as the social opportunities associated with possession of the diplomas they award are generally greater than those offered by university degrees. Since they provide the best outlets for the best students, the Grandes Ecoles are in fact at the top of a hierarchy of prestige which is not only implicit and they organise a social microcosm based on co-optation and alliance of which the practice of endogamy is merely the least clandestine characteristic.*

---

* The suggestion that you have to graduate from the Ecole Polytechnique or the Ecole Normale Supérieure if you want to be something more than an engineer or a lycée teacher is a joke which only a former X or a former normalien could make. Statistics of the career patterns of graduates from these two schools show that this is by no means always the case and the suggestion is simply a magic formula intended to ward off evil. But it is naturally the myth rather than the reality which lends credence to the sociological scale of prestige, if only because it greatly contributes towards shaping the reality.

It is no doubt the dual nature of the French higher educational system that is responsible for the inflexibility and overlapping which hamper progress in research. By selecting the best students, the Grandes Ecoles tend to sterilize research in the Faculties, while in view of their functions, their organisation and the funds at their disposal, the Grandes Ecoles, apart from a few exceptions, are unable themselves to promote research activities. In these circumstances, it is not surprising that throughout the history of the French higher educational institutions there has continually been a kind of *periodic reinvention* resulting in the successive creation of bodies and institutions specializing in research and that this phenomenon has accentuated the division between research and the university system proper. The creation of the Ecole Pratique des Hautes Etudes, the CNRS and the Institut National de la Recherche Agronomique bears witness to the impossibility of carrying out research in Faculties dominated by the Grandes Ecoles.

Reform and changes in the structure of higher education

As we have seen, the legal measures examined in the present study have reformed only the Faculties and, in science and arts, the lower levels of university studies without affecting the rest of higher education: preparatory classes for the Grandes Ecoles, the Grandes Ecoles themselves or such rewarding diplomas from the professional and social point of view as the agrégation. But limiting themselves in this way, the recent reforms are condemned to introducing into the university system only those innovations which are by definition unable to change its structure. In a university structure that has remained fundamentally the same because the three poles around which it is built (Faculties, Grandes Ecoles and special research institutions) have retained their functional weight, innovations — no matter how many — are obliged to take the direction forced upon them by that structure. We have seen how even the reforms which appeared most novel, e.g. the new Master's degree, could, if the system were left unchanged, simply serve to perpetuate the *statu quo* under cover of a new name. It may therefore be questioned whether the introduction of a fourth type of institution in the form of the Instituts Universitaires de Technologie really constitutes a change in the basic structure of higher education. The real significance of the IUT can be appreciated only by reference to the old structure described above. If a high proportion of students without the baccalauréat gain access, as planned, to the IUT, the latter will no doubt occupy the lowest place in the hierarchy of higher educational institutions in view of the university title bestowed on their public and the specifically professional nature of the courses they offer. If, owing to the limited number of places available, students are selected from among Baccalauréat Certificate holders, the IUT will probably have an intermediate status similar to that of the schools training higher technicians or executive-grade engineers such as the Ecole Supérieure de Commerce (as opposed to the Ecole des Hautes Etudes Commerciales) or the Ecole Nationale Supérieure d'Horticulture (as opposed to the Institut National Agronomique).

---

* This analysis is based on an ongoing study of the Centre de Sociologie Européenne. The results of this study devoted to Grandes Ecoles students will be published in a report by P. Bourdieu, *Le Système des Grandes Ecoles.*

Thus, insofar as the recent reform of higher education does not change the basic structure of the university system and what appear to be the most spectacular innovations run the risk of being remodelled and reduced by the logic of the system, the measures introduced should not be interpreted separately but, whenever possible, by reference to the overall scheme of which they are part.

3. THE "CRISIS IN THE UNIVERSITY" AS VIEWED BY THE PUBLIC. INITIATORS OF REFORM AND REFORMERS. RESISTANCE AND OPPOSITION.

The layman's version of the crisis and the wide variety of diagnoses

The discussion on the aims and methods of the reform of higher education has finally been made more obscure rather than clearer by the apparent agreement of social groups of all kinds on the need for university reform. Despite the objective differences between the problems raised by the different disciplines and the various types of course and despite the real disagreements regarding the remedies proposed, all are prepared to subscribe to the general indignation which reconciles the opposing views: while no one reproaches the University with the same thing, everyone at least reproaches it with something. Whether it be the government authorities, the opposition, the administrators, teachers, students or their families, everyone is unanimous in denouncing "the University's non-adjustment to the changing needs of present-day society", although the content and consequences of the changes in question, the image of the University and the assessment of the extent and causes of this non-adjustment vary for each group. "University routine" is denounced just as much by the Prime Minister as by the officers of the student unions — and just as much by the organisers of the Caen Seminar as by the Société des agrégés.*

* "Who can fail to see that our century is experiencing a vaster and deeper transformation than ever the Renaissance knew? What was regarded as the safeguard of culture and a peerless education in the time of Fontanes and Victor Duruy, and even of Léon Bérard, is today no more than routine?" (G. Pompidou — Speech in the National Assembly — *Le Monde*, 21st May 1965). "The University is no longer a creative institution but a depository; it takes no part in living culture" (UNEF

Apart from the fact that this kind of agreement is too broad to have any practical significance, the problems raised by the different disciplines of higher education were in reality not the same. As we have seen, the various reforms did not all stem from the same instigating groups. The social forces favouring change are not the same in medicine as in the other disciplines. More specifically, the reform of law studies is due above all to changes in professional demand, and although science reform is the product of governmental decision, it also in some respects meets the aspirations of a group of teachers, research workers and high-ranking administrators. But whereas the scientists have already worked out the rudiments of a doctrine of reform as was seen at the Caen Seminar, this is not the case for arts, where criticism though general is vague and often contradictory. The crisis in medical and law studies seems to be due to the overwide gap between the instruction provided and the scientific or professional needs it is intended to serve which are fairly easy to determine, while in science and arts the need to reform the university system stems in the main from its manifest incapacity to deal effectively with the rise in student enrolments.

Reform and resistance to reform

a) *Patent and institutionalized resistance*

It is tempting for those who observe and criticize university conservatism to lay the blame on particular individuals or groups. It is easy enough to see that certain pressure groups tend to organise the defence of their monopolies around the most strategic points and to infer from this that the reform, especially in arts and science has left the really basic institutions and structures intact. For instance, the *Société des agrégés*, the last stronghold of the die-hards dedicated to defending a diploma and the prerogatives it confers, is typical of institutionalized resistance to change. The nature and style of its resistance openly point to it as the most positive expression of the conservatism of teachers and the system. In the eyes of its critics, it plainly personifies the failings and historical blindness which are the mark of a declining aristocracy: thus, at a time when the very existence of the diploma it defends is being objectively called in question, it seeks to extend the monopolies enjoyed by agrégés, demanding that the best graduates be automatically appointed as Faculty assistants and that the rank of master-assistant be conferred on agrégés alone.

But resistance of this kind, no matter how effective it may be (for the moment at least), must not blind us to the deeper-lying resistance of university tradition. The ostentatious conservatism of the Société des agrégés or other associations of the same type are in fact a source of undue optimism among the innovators, who too easily assume that once this open resistance has been overcome, the way will be clear for university reform. The old-fashioned nature of this overt resistance encourages them to believe that the conservatism of the University is merely the apanage of certain

---

Programme, 1966). "The officers of the Société des Agrégés, meeting under the chairmanship of Mr. Guy Bayet, noted the positive nature of many factors in the reorganisation of education announced by Mr. C. Fouchet" (*Le Figaro*, 25th February 1966). "The University is responsible for the difficulties it is experiencing because it does not take sufficient interest in its internal administrative organisation, of which it is nonetheless the master" (M. Zamanski — *Le Figaro*, 8th November 1966).

academics.* They believe that is it enough to reduce a few of the more obvious bastions to overcome the immobilism of the system as a whole.

b) *Latent and systematic resistance*

In reality, institutionalized resistance to innovation is probably less effective than the latent resistance of the university system as a whole. We referred in the Introduction to the great capacity for "redigesting" innovation that is characteristic of all educational systems, and especially a system like the French one which in the course of its history has acquired a particularly marked ability to create its own standards. It seems in fact that the weight of university tradition makes itself felt at each level and at every moment of the system's operation and that even the most vigilant university men and those most convinced of the need for reform risk being constantly called back to the traditional order since their behaviour is still subject to the influence of a mass of diffuse and unperceived stimuli. Thus, every attempt to rationalize teaching relations and communication between teachers and taught is systematically countered by a concourse of deeply-rooted habits. The school keeps its "best products" for the school, i.e. those most in tune with the university mentality. To put it more precisely, in the preparatory classes and in the Grandes Ecoles, future university lecturers are taught to look upon the teachers of the preceding generation as "mythical ancestors", the undisputed masters of pedagogical practice. The pedagogical behaviour of a generation of teachers is therefore always determined to a greater or lesser degree by reference to the pedagogical behaviour of the preceding generation.

We must not be deceived by the tendency of student movements to adopt revolutionary ideas. It is by no means certain that the student body as a whole subscribes to the principles and aspirations openly proclaimed by the most politically active groups. The revolutionary nature of student ideology often dissimulates under the most controversial rhetoric implicit recognition of the most traditional standards. We know that the most extravagant protests against the rules may mean nothing more than a special form of allegiance and submission peculiar to certain social groups when placed in a particular situation. Thus, when invited in a test to imagine "the layout of the ideal lecture room", most of the students questioned suggested solutions which still owed much to the traditional layout; at the extreme, the student who suggests placing the teacher in the middle of a circular room in order to put him at the mercy of the "student's innate cruelty" is really going back to the traditional negation of the accepted way of things as expressed in the time-honoured school children's song about "schoolbooks in the fire, teacher in the middle". The refusal to accept the most obvious aspects of university conformity may often conceal the desire to conform to the traditional code of conduct which makes coy reluctance and qualified reticence the accepted form in intellectual circles for compliance with standards and values.

---

* If this type of analysis is so often made it is probably because, like all analyses based on moral indignation, it provides a cheap substitute for sociological analysis — voicing more often than not the resentment felt by marginal intellectual groups against the University and university qualifications: journalists, politicians, technicians, administrators and working class intellectuals.

Formal analysis of the reforms and examination of the ideological attitudes they have aroused are therefore only a preamble. In fact, it is only when the reforms are applied that they take on their real meaning. The capacity of the educational system to assimilate innovations is such that we cannot be content to take the legal texts at their face value; we can no more base an analysis of the effects of the reform on the declared intentions of the reformers than we can on the criticisms of users and of the general public.

c) *Official organisation and system*

If it is agreed that the university system's resistance to innovation cannot be reduced to the overt resistance organised by particular groups but is latent throughout the whole system and implicit in the behaviour of the whole University body, then the official *organisation* of the university institution is no more than an abstraction compared with the *real operation of the system:* the ethnologist has long been aware that *functional attitudes associated with the operation of an institutional system must necessarily be included in any complete definition of that system.*

No doubt the operation of the system as shown by the organisation chart is not always equally deceptive, depending on the Faculty and discipline. Groups of Faculties do not express the logic of the university system in the same way or to the same extent. The disciplines whose professional outcome is least equivocal, e.g. the Faculties of Pharmacy and to a smaller extent Medicine, are no doubt those which least corroborate the assumptions based on the autonomization of university values. On the other hand, the Faculties of Arts offer a typically ideal example of the university trend towards autonomization. We have for this reason frequently put the accent in the present study on Arts Faculty reform, which probably best illustrates the difference between the reform as officially decreed and the reform as actually put into practice.

The sociological analysis of a reform requires a distinction to be made between *the ends* explicitly assigned by the legislator to a series of decisions and the *objective functions* actually fulfilled by the reform. Unless we fall into the *artificialist* illusion which postulates that social realities are transparent and plastic, we cannot believe that these *ends* and *functions* necessarily coincide. In fact it would seem that the educational system is one of the fields where the gap between the ends pursued and those actually attained is the greatest. This is at least what a number of precedents tend to show: for example, the declared purpose of the upper primary schools, and later the continuation classes and finally the CEG (Collège d'enseignement général) were to provide working class children with the opportunity for cultural and social advancement. It looks however as though the result has been simply to side-track the poorer scholars and to preserve the "élitist" system of recruitment for the lycées. In these circumstances, sociological investigation cannot be confined to an analysis of the ends assigned to the various reforms by the reformers. Nor can a critical analysis be based only on a study of the way the different social groups react to these reforms. We would be as naïve as the technocrats who think that they can order the functions to come into line with the ends if we thought, as the reformers do, that the IUT will provide a channel of social promotion for young people with a "practical type of intelligence" and for the "less able" a rational course of studies based on a more accurate assessment of abilities instead of simply eliminating them. In view of the inbuilt mechanisms which the educational system more than any other social system, and especially higher education, has at its command for resisting and converting pressures from the outside world, it is not enough merely to analyse the subjective intentions of the legislator or the reforming groups in order to settle the question of the practical effects of reform. It may be useful therefore to confront the criticisms traditionally levelled at the French educational system and the reforms effectively applied, with the results actually obtained.

III

REFORM AND THE GROWTH IN ENROLMENTS

1. INTRODUCTION: ENROLMENTS AND THE INCENTIVE FOR REFORM. THE SITUATION IN THE VARIOUS DISCIPLINES

The continuous rise in enrolments in higher education is not peculiar to France; it has been going on in all the developed countries and, so far as the European countries are concerned,* at least since 1950. There is no room here to go into the different population, economic, social and cultural factors which have combined to boost the rising trend in higher education. It is sufficient to note that although some of them may vary (e.g. increase in age-groups, associated with a birth-rate that might well decline in most European countries in the years ahead), the general configuration of these factors and their probable development do not indicate, at least in the medium term, any halt in the rise in enrolments for the over-18 age-groups, a growth which even for the slowly expanding or stationary age-groups is sufficient to keep up the increase in total numbers. Of the two types of process which govern enrolments — processes *upstream* from the educational system such as family demand for education and processes *downstream* from the schools such as labour market demand — the factors favouring the increase in enrolments appear to have been associated for sometime now with the development of industrial society. Changes in incomes and attitudes towards education in the various social classes, as well as changes in the level of skill of the active population, all influence the educational system in the same direction.*

---

* However, the comparisons often made of the rate and intensity of this growth in the various countries must be treated with caution, whether they refer to the increase in enrolments, the number of students per 1,000 active persons or — at best — enrolments by age-groups (especially when the comparison is between the European countries, the United States or the Soviet Union, where the concept of higher education covers a very different pedagogical and institutional reality). The title "student" and the way it is used can be most misleading when comparing one country with another; schooling above 18 years of age may be counted only for students actually enrolled in a university — as is especially the case in France, to the point that some statistics even fail to include Grande Ecole students, who appear only if they are also enrolled in a Faculty — or it may, on the other hand, cover the most diverse range of studies regardless of the content, level and purpose of such studies or of the students' previous schooling.

The increase in numbers may therefore be regarded as a primary and permanent factor in the problems with which higher education in the developed countries has been faced over the past few years and is likely to be faced for some time to come. In the case of France, what might be called the *numbers effect* ("effet de nombre") seems to apply both to the general reform of higher education and to the direction given to certain specific reforms. In the first place, it is certain that the rapid growth in enrolments in the Faculties of Arts and Science since 1960 has raised practical problems (ecological, morphological, institutional and pedagogical) which have made it impossible to preserve the status quo and have directly engendered ideas of reform. In the second place, the "rising tide of students", regarded as a globally and syncretically perceived phenomenon independently of its differential impact on the various types of study as repeatedly depicted in the Press, has helped to instil in the public mind the idea that "something must be done". Confused though it is, this impression of *overwhelming numbers* has stimulated measures of reform or facilitated the acceptance of reform, even in the Faculties of Law and Medicine where the problem of numbers did not arise.

Thus, although the numerical value of the total increase in student numbers is merely an abstraction bereft of any sociological significance, it is the motivating image in the public mind which — both for itself and its consequences — must be treated as a social reality. Everyone knows, repeats and hears because it is so often repeated that "the number of students enrolled in French Faculties has almost doubled since 1962–63". The extent of the phenomenon has been such as to give it even greater force of demonstration through the spectacular nature of its practical consequences, with overflowing amphitheatres and disorganised classes, to the point that everyone translates these spontaneous sociological conclusions in terms of his own interests or claims: thus, the Paris daily papers continually give far more attention to the problems of higher education than to those of the other levels of education, no matter who their public may be. In November 1968, the proportion of articles under the heading of education devoted to higher education was 47% in *l'Aurore*, 40% in *l'Humanité*, 48% in *le Monde* and 43% in *le Figaro*.** Most of the articles centred around the theme of the growth in enrolments and its consequences, such as "inundated Faculties", overflowing amphitheatres, residence halls and student restaurants, "breakdown of the antiquated system" and inability of the "obsolete structure to cope with the ever-rising flood of students". Over the same period, four titles out of five in *l'Aurore* were devoted to the student phenomenon and its consequences, four out of six in *le Figaro* and three out of four in *l'Humanité*. Out of 100 lines on higher education, 80 in *France Soir* and 70 in *le Monde*, dealt with the growth in enrolments and its consequences. Such unanimity is proof enough of the symbolical significance of the phenomena of "number" in industrial society, where every "increase" is in some way subjects to a multiplying factor. It is precisely the simplest statistics (and sometimes the most meaningless if we think of the "average Frenchman" of most Press opinion surveys) which lend themselves best to this use and enable a wide public to participate in the marvels of rational planning.* In any case, the reaction observed to the theme of increasing enrolments is an encouragement to regard this phenomenon as the buttress supporting the intention to reform and the most readily understood reason for it. Presented in this way, the current reform is usually understood and accepted by most social groups as an attempt to "modernize" the university and adapt it to the requirements of the "rising generation".

---

* In any event, the higher education rates of 40 to 50% already achieved or expected in 1970 in the United States and the Soviet Union are both an indication of what may be expected in the way of enrolments in the European countries and an incentive to prepare for the future, even if it means changing the definition of higher education.

** These observations are based on an analysis of the French Press between 1st and 30th November 1967, covering the dailies representing the different sectors of opinion. Whatever methods are used (analysis of titles covering more than two columns, number of lines or space devoted to each subject), the results are the same.

In reality, a sharp distinction has to be made between law and medicine reform and arts and science reform. There can be little doubt that the most recent reforms in the Arts and Science Faculties are essentially a response to the increase in enrolments. In law and medicine on the other hand everything suggests that the reforms serve a different purpose. In 1965, student enrolments in the Faculties of Arts totalled 133,000 and 121,000 in the Faculties of Science: *the numbers had doubled in five years*. In the Faculties of Law however enrolments *fell* between 1950 and 1960 (in absolute figures and still more as a percentage), while enrolments in medicine remained almost unchanged.** The reforms of law and medical studies were prepared from 1954 and 1958 respectively and are in no way connected with the problem of enrolments. Perhaps because the study of law and medicine has always been associated with specific professions and because the teachers in these Faculties were as much practitioners as teachers and kept in fairly close touch with the professional circles which provided the main outlet for their students instead of confining their dealings to their university colleagues or to secondary school teachers (like their counterparts in the Faculties of Arts or Science), the Faculties of Law and Medicine were not a privileged precinct of *specifically university* conservatism.*** They were more in touch with professional requirements than the Faculties of Arts and Science and were therefore more receptive to demands for reorganisation emanating from outside the educational system.

The reform of law studies is an objective response to changes in the professions to which they lead. The creation of a first degree in economics in 1959 was intended more or less explicitly to provide a training in law and administration more in keeping with the changing needs of industry. * Similarly, the establishment of university hospital centres (Centres Hospitaliers Universitaires — CHU) met the preoccupations of a group of research workers and political authorities concerned by the slow progress of medical research in France. (As we can see, although the Faculties of Law and Medicine are the only schools of medicine and law, the Faculties of Arts and Science do not have the professional purpose which at least in the first analysis defines the Grandes Ecoles). The Faculties of Arts and Science are the most deeply entrenched and hence the most traditional institutions in the university system and can evade extramural requirements because their courses are self-sufficient and entirely oriented towards teacher training. Demands from outside the system therefore impinge on such traditional and insular institutions only through the demonstrative and, in some measure, destructive effect of numbers. It was only when the Faculties of Arts and Science had been overrun and paralyzed by the increase in enrolments and their unsuitability for research and even teaching had been demonstrated and magnified by their inability to train students normally that groups outside the university (politicians, journalists and management) could effectively denounce their derisory output, their indifference to economic demand, their conservatism and their inertia, and that the need for reform was admitted by even the more traditional of academics. **

---

* It is hardly an accident that the theme of number is the one which most readily procures the illusion of the democratization of education. For anyone who thinks of students as a group of "young people" of indistinguishable social origin, all that needs to be done to democratize higher education is simply to increase the number of students. See below, pp. 65 to 75.

** See Table 5.

*** The undeniable conservatims of the lawyer or the doctor is quite another matter: it binds the teaching body to a corporation and to its interests or professional values rather than to the university and its spirit of independence. This second type of conservatism offers less resistance to attempts at *university* reform than university conservatism itself.

Thus, the growth in student numbers is related in many ways to the reform of higher education.

a) The *numbers effect* is an incentive to reform since it facilitates and popularizes the idea of reform. Certainly, in France, the numbers effect has contributed no little to the public image of the "crisis in higher education" which — whatever one may think of its over-simplification — is an integral part of the university crisis. This widespread impression of "crisis" has undoubtedly played a part in the decision to reform higher education.

b) In some respects the content and orientation of the reforms are also intended to answer the *challenge of numbers,* whether by providing better reception facilities for the ever-increasing influx of students or, on the contrary, by putting a brake on what is considered to be a galloping expansion. Since all the reformers call for the widest possible extention of higher education, it would be difficult to find in the reforms measures which are deliberately restrictive. Even if some aspects of the reform harbours this aim or might perhaps lead to an effect of this kind, this can be judged only *a posteriori* and by a process of comparison. In any event, the challenge of numbers does not necessarily involve any change in the structure and functions of an educational system: the most widespread view in university circles is that the increase in enrolments raises no other problem than how to provide the university with more ample resources since on the whole it works reasonably well and is simply going through a " crisis of growth ".

---

* It should be noted that in France, specialized economics courses were introduced into the Faculties much later than in most other European countries. The inflexibility of the French system can be seen in the time it takes to give new disciplines university status; at the same time, new disciplines are the more quickly and easily adopted by the system the more readily they lend themselves to reinterpretation in terms of traditional standards of teaching and research: thus, the "licence" or first degree in economics (1959) was created after the "licence" in sociology (1958), which itself came well after the "licence" in psychology.

** The university first tried to stave off the rise in enrolments by setting up barriers such as the "propédeutique" or preliminary course (Certificat d'Etudes Littéraires Générales: CELG — and Mathématiques, Physique, Chimie: MPC, etc.) in 1948. This solution might have satisfied the teachers if it had been technically effective, which it was not. The pedagogical and administrative cost of the course seemed too high to a growing number of teachers, while its selective "efficiency" was relatively low: the "propédeutique" eliminated only half of the students and took several years to do so. On the other hand, "propédeutique" was considered to be much too efficient by the technocratically-minded critics, precisely because it eliminated one student in two. In the end "propédeutique" finally succumbed under the combined attack of traditionalists and technocrats based on these diametrically opposed concepts of efficiency.

c) Some consequences of the rise in enrolments are due to the *demonstrative power of numbers:* by changing the proportion of students in higher education, the increase in enrolments has highlighted problems (quality of teaching, communication, educational field, job opportunities) which lay below the surface or could easily be evaded so long as higher education affected only a small minority tailored to the traditional system. It is in fact the most traditional forms of education which in the ordinary way are quite capable of protecting themselves indefinitely from innovation, simply by denying that there is anything wrong or that there is anything to suggest that there might be, which are most likely to be blown apart by the hidden contradictions revealed by an increase in size. The gravity of the crisis caused in a system of education by the rise in student numbers could be taken as a pointer to its degree of traditionalism: from this point of view, the Faculties of Arts have proved to be the most traditional sector of education insofar as they felt the need for reform only when forced to do so by the rise in student numbers and by changes in the social structure of the student population.*

d) Lastly, the reform has of course had some effect on the rate of increase in student enrolments. It is extremely hard to say just how effective it has been in this field: with certain precautions of method, it is possible to attribute specific changes in the trend of enrolments following the introduction of a reform to the consequences of that reform, especially in cases where the *trend is reversed.*** But it would doubtless be unwise to speak of the effectiveness of the reform in cases where the trend of enrolments follows a different direction from that anticipated by the reformers. In this respect, the intention of the science and arts reforms is ambiguous and it will always be difficult, even on the evidence of the subsequent trend of enrolments in the Faculties of Science and Arts, to say whether it has achieved its objective, since it is invoked by some as a means of promoting the growth of enrolments while rationalizing education, whereas others expect this reform to slow down what they regard as the excessive increase in the student population.

---

* These changes, which as we shall see (pp. 76 to 83) faithfully reflect the educational opportunities of the different social classes — though there can be no question of any real democratization of education — can affect the educational context and the operation of the system (over-enrolment by the privileged classes, increased educational opportunities for the working class or rather for certain of its fringes and especially the middle class).

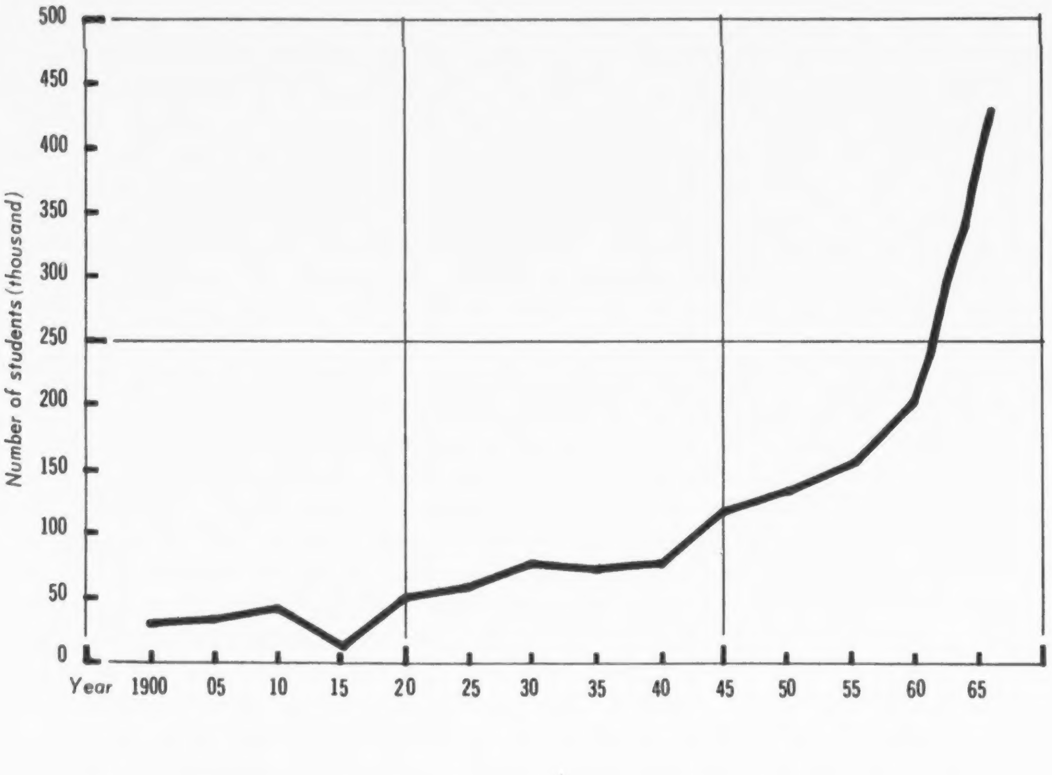
** This is the case, for example, in the Faculties of Law; see pp. 51 to 55.

2. THE GROWTH IN ENROLMENTS AND ITS FACTORS: SOME BASIC DATA*

Between 1900 and 1966, student enrolments in the French Faculties as a whole rose from 29,759 in 1900-01 to 428,479 in 1966-67, thus multiplying by 14. It appears to have been just before 1950 when enrolments in French higher education began to climb: Graph 1 shows that enrolments were more or less stationary between 1900 and 1915 and between 1925 and 1940 after an increase following on the First World War.

Graph 1

TREND OF STUDENT NUMBERS BETWEEN 1900 AND 1966



From 1960 onwards, higher education enrolments rose more steeply; in the 15 years between 1945-46 and 1960-61, student numbers almost doubled, rising from 117,915 to 203,375; but they multiplied by 2.15 in the six years between 1960-61 and 1966-67. In spite of the increase in absolute numbers, the annual rate of growth related to each preceding year, (14%

---

* We considered it advisable here to recall some of the statistical data which are indispensable for any understanding of the present situation. Annex I contains more detailed information.

Table 2. RATE OF INCREASE IN HIGHER EDUCATION ENROLMENTS SINCE 1960-61

Year	Enrolments	Increase base: 1960-61 = 100	Annual rate of increase (in per cent)
1960-61	203,375	100	–
1961-62	232,610	114	14
1962-63	266,556	131	14
1963-64	308,189	151	15
1964-65	343,133	169	11
1965-66	387,303	190	12
1966-67	428,479	211	10

Source: *Informations statistiques*, Nos. 86 and 95.

in 1961-62 and 12% in 1965-66) has remained higher than or equal to 10% since 1960.

Table 3. POPULATION TREND AND TREND OF ENROLMENT IN HIGHER EDUCATION[1]

Year	French population (19-24 age-group)	Student population (19-24 age-group)	Rate of enrolment %	
1911	3,707,000	25,940	0.7	
1936	3,285,000	46,488	1.4	Over the half-century
1946	3,760,000	76,810	2.0	
1954	3,770,462	92,341	2.4	
1957	3,650,000	104,330	2.8	
1958	3,613,144	118,295	3.3	
1959	3,591,047	126,024	3.5	
1960	3,509,000	126,596	3.6	
1961	3,409,171	129,535	3.8	Over ten years
1962	3,383,600	148,699	4.4	
1963	3,420,700	172,611	5.0	
1964	3,490,360	191,905	5.5	
1965	3,560,228	210,931	5.9	
1966	3,867,814	231,000	6.0	
1967	4,253,000	–	–	

[1] This is a rough estimate obtained by relating the 19-24 student age-group to the corresponding total age-group. No statistics of the age distribution of students are available for 1911, 1936 and 1946. In order to make comparison possible over the course of time we have preferred to retain the same method of calculation and assume that the 19-24 age-group accounted for 65% of the student population, i.e. the average percentage for 1950 to 1962. The figures would be different but the trend would remain the same if, as did Mr. R. Poignant, we used the rate of entrance into higher education, i.e. the attendance rate for the 18-20 age-group, as an indicator of the trend of higher education enrolments: see R. Poignant, *L'enseignement dans les pays du Marché Commun* (Education in the Common Market Countries), IPN, Paris, 1965, p. 182.

Source: Prepared by the European Sociology Centre from data available in BUS, INSEE and the Central Department of Statistics and Economics of the Ministry of Education; see also *Informations statistiques*, No. 95.

The higher birth rate in France did not begin to affect the growth of student enrolments until 1965. In fact, the number of persons in the 19–24 age-group fell steadily from 3,650,000 in 1957 to 3,383,600 in 1962. It was only in 1965 that the age-groups born after 1945, when the population upswing began, reached the higher education stage and that the 19–24 age-group rose above the 1960 figure for the same group. Up to 1965, the growth in the over-18 enrolment rate was therefore the only cause of the increase in university enrolments. From 1965 onwards, the population rise and the rise in the enrolment rate produced a cumulative effect which may explain why the annual rate of increase in the numbers attending the University did not slow down despite the enormous size of the student population.

This phenomenon is unlikely to ease off in the near future. Having regard to the foreseeable effects of the various factors contributing to the growth in higher education enrolments, the experts on the "1985 group" consider it plausible that by 1985, 50% of young people will continue their studies beyond the age of 18 (of which 40% will take short courses and 10% long courses in higher education). This seemingly very ambitious figure cannot be dismissed as utopian: so far, projections of prevailing trends have tended to underestimate future enrolments, so that all forecasts have had to be revised upwards. Thus, an OECD study notes that the number of enrolments in secondary and higher education at establishments in the OECD European countries has doubled in 15 to 20 years, thus sustaining a rate of increase which "has surpassed even the boldest forecasts. In France, for example, the 1962–63 enrolments in higher education were 14% higher than had been foreseen a few years earlier; the figure foreseen for 1970, which had until recently been considered extravagant, will be attained by 1966–67".* The IVth Plan forecasts a total of 505,900

Table 4. ESTIMATED AND ACTUAL ENROLMENTS TRENDS

(*Faculty population*)

Year	Actual enrolments	Enrolments forecast in the IVth Plan
1962–63	266,556	262,540
1963–64	308,189	285,820
1964–65	343,133	323,375
1965–66	387,303	367,335
1966–67	428,479	405,745
1967–68	–	439,800
1968–69	–	477,295
1969–70	–	505,900

Source: General report by the Commission de l'Equipement scolaire, universitaire et sportif, IVth Plan, p. 73.

---

* In *Curriculum Improvement and Educational Development*, OECD, December 1966, p. 28.

students for 1969–70; it had forecast 405,745 in 1966–67, whereas the actual numbers were 428,479.

3. OBSERVABLE OR FORESEEABLE EFFECTS OF REFORM ON THE TREND OF FACULTY ENROLMENTS

It cannot be claimed that, when preparing the decisions concerning the reform of the French Faculties, special measures were selected in terms of the desirable trend of student numbers or their distribution among the various disciplines. There has for sometime been a consensus of opinion in France — at least among the planners — on certain desirable directions of the trend of higher education enrolments: viz., a steady and even rapid increase in the number of students on condition that higher educational establishments are diversified in the light of the employment demand, a more rapid increase in the number of students in the science disciplines, and a "boosting" of the Faculties of Law and especially the Faculties of Medicine, since France lacks both practitioners and research workers in this field as compared with other countries. But so far the publicity given to these "objective needs" seems to have been the only means adopted to influence student distribution over the various disciplines, and the effect of propaganda on outlets has proved to be very limited in this case.*

Since the reforms contain no specific measures to control total enrolments and their distribution, it would be pointless to try to assess their effectiveness in this field. But if certain aspects of the reform were to affect the trend of enrolments beyond the shadow of a doubt, this would be a valuable piece of information for the future. Very little is shown about the *relationship* between the organisation or content of a course and the degree of its appeal to students.

In fact, the only measures which have proved effective in this field are those which set up "barriers", and quite naturally the authorities adopt this negative approach when spontaneous developments oblige them to intervene. Should the trend of Arts Faculty enrolments appear to exceed the bounds of tolerance, having regard to the outlets for these studies, or, more generally speaking, should the Faculty population seem to be larger than the number capable of receiving this type of education with profit, then discussions immediately begin all over again on the best way of introducing a *numerus clausus* which does not look too obviously like one.

---

* In fact, when we consider the present influence of educational planning on the behaviour of users, we are obliged to conclude that, for a long time yet, the specific educational attitudes of the various social classes will provide the best basis for forecasting if we wish to know, not what the desirable breakdown of enrolments between the various types and levels of education should be, but what it actually will be at a given point of time. If anyone had asked towards 1950 what would be the increase in arts and science students respectively over the following decade, it would have been the pessimistic *observation*, based on the knowledge that Arts Faculties act as a refuge, which would have been most likely to produce the forecast that arts enrolments would rise as rapidly as science enrolments, and not the desirability of a more rapid rise in science enrolments, although this corresponded to the needs of the economy and had been widely proclaimed.

Ambiguity of enrolments policy in the Faculties of Arts and Science

Perhaps because malthusian aims always have a bad Press and because opinions in University circles as well as among administrators are divided on the desirability of the sharp rise in enrolments in these two Faculties,* the reform of arts and science courses and the reorganisation of the terminal secondary cycle which cannot be dissociated from it give rise to measures which are bound to produce contradictory effects, as some encourage the expansion of enrolments and others aim at restricting them. The least that can be said is that these measures do not express an enrolment policy.

The reduction of the "baccalauréat" to a single examination, coupled with the abolition of the "propédeutique", inevitably implies an increase in the flow of qualified applicants likely to seek access to higher education (which, as the system stands at present, means only the Faculties, with the Faculties of Arts and Science taking more than 60% of the entrants). On the other hand, the reorganisation of the first cycle of higher education by the 1966 Reform is, in principle, designed to ensure a more severe selection and consequently to restrict the uncontrolled flow into the later cycles.

From this point of view, the history of the changes which have taken place since 1950 in the Faculties of Arts and Science might be reduced to an account of successive attempts to build ever more effective barriers to the pressure of numbers but for the fact that measures tending to have the opposite effect give reason to doubt that any policy – of whatever kind – had ever been expressed in such contradictory decisions. The creation of the "propédeutique", accompanied by the ruling that candidates who failed the examination four times were forbidden to continue higher studies in the same discipline, met the university desire to protect the sanctuary of higher education by building a vestibule where the selection of neophytes might take place. The introduction in 1966 of a two-year first cycle leading to the DUEL or the DUES follows the same line of logic: the first cycle is thus a probationary period half-way between secondary education, which it resembles in certain respects, and higher education proper. In this new-style "propédeutique" candidates do not enjoy all the traditional student freedoms; class attendance is compulsory, they are obliged to choose a speciality at the very beginning of their course and have to follow the guidance of the examination boards. They are under supervision in the same way as lycée pupils and are subjected to a series of tests which may permit a more severe selection. The possibilities of elimination are, in principle, increased as no student is allowed more than one repeat.

The foregoing applies to the principles governing some of the changes made in science and arts courses, but does not authorize any antiticipation of the trend of enrolments in these disciplines. It is obviously impossible to refer to the facts in view of the date of application of the reform (opening of the 1966–67 and 1967–68 academic years). However, we may venture a rough forecast: in view of the university system's ability to reinterpret such measures,* it is already predictable that tightening up the means of access to the second and third cycles in the Faculties of Arts and Science will not numerically speaking offset the increased mass of applicants for the first cycle. The flow of entrants to these two Faculties will therefore continue to grow and will be limited only by the reception capacity of premises and teachers, the annual crisis at the opening of the academic year and the dissuasive effect of disorganisation. Two developments are then possible:

---

* Opinions are in fact divided on this point, even though the opposition is never fully apparent, because most of those who would like to slow down or even half the increase in enrolments have to proclaim the same principles as the "expansionists" when presenting their proposals: they affirm their acceptance of the expansion of higher education, merely adding that a severe selection process should reserve the Universities proper for the best students, the rest being sent to new establishments "to be set up"; in the short-term and subject to the pious hope for diversification of higher education, this attitude amounts in practice to a policy of closed higher education *in its existing form.*

a) the accelerated transformation of these two branches of education under the pressure of numbers may lead to the diversification of higher educational establishments and, in particular, to the introduction of IUT more quickly than originally planned, especially in the arts sector. This, if one likes, is a favourable development since numbers will have helped to bring the problems to light (obviously at the cost of definite educational damage to the generations of students who will have had to prove the incompetence of the system),

b) the introduction of a policy to restrict the number of students, limited only by the unpopularity it would incur if it were too openly declared. In this case a system of selection will be established for entry to the Faculties (whether or not account is taken of the results of the baccalauréat). If this development were to occur unaccompanied by adequate diversification of higher educational establishments, then a *numerus clausus* policy would in fact triumph in practice.

Because of their ambiguity and caution, the partial reforms of arts and science courses may therefore have two possible consequences which at least in their extreme forms, are directly contradictory: either by virtue of policy decisions, selection will be made subject to diversification, or else selection for admission to the Faculties will be established as an emergency measure and will be reduced to pure and simple elimination so long as diversification is postponed until better days.

The reform of law and medical studies and the trend of enrolments in these disciplines

The reform of law studies provides a very clear example of the effect of a reform on the trend of enrolments, since it appears to have made them increase by adapting the institution more closely to professional demand and inducing a larger number of young people belonging to the social classes which already provided this Faculty with most of its students (but which were also particularly well informed regarding the growing gap between law studies and the requirements of modern bureaucracy) to engage in studies providing more numerous and more certain outlets. Whereas

---

* Among a thousand other devices which will run counter to the expected effects of dissociating the "licence" from the "maitrise", we can already refer to the tendency of teachers to encourage their students to take a long second cycle in order to swell enrolments in their section and justify strengthening the "maitrise" in their discipline, a classical university effect of section or Faculty "patriotism".

Table 5. TREND OF ENROLMENTS AND RELATIVE PROPORTIONS OF THE VARIOUS DISCIPLINES AS COMPARED WITH TOTAL ENROLMENTS[1]

	Law		Medicine		Pharmacy		Science		Arts	
Year	Enrolment	Relative proportion	Enrolment	Relative proportion	Enrolment	Relative proportion	Enrolment	Relative proportion	Enrolment	Relative proportion
1950–51	36,888	27.5	29,083	21.7	6,810	5.1	26,156	19.5	35,156	26.2
1955–56	35,486	23.3	29,091	19.2	7,594	5.0	38,290	25.2	41,785	27.5
1960–61	33,634	16.5	30,587	15.0	8,697	4.3	68,062	33.5	63,395	30.7
1961–62	38,469	16.5	36,203	15.6	9,300	4.0	75,282	32.4	73,376	31.5
1962–63	45,511	Reform applied 17.1	37,633	14.1	10,174	3.8	88,175	33.1	85,063	31.9
1963–64	53,650	17.4	39,751	Reform applied 12.8	10,806	3.5	100,498	32.6	103,484	33.5
1964–65	65,141	18.9	37,940	11.0	12,417	3.6	109,628	31.9	119,017	34.7
1965–66	77,114	19.9	41,658	10.7	13,776	3.5	121,539	31.4	133,316	34.4
1966–67	88,030	20.5	47,593	11.1	15,219	3.5	124,721	29.1	152,916	35.7

[1] The year when the reform was applied in each discipline is shown graphically.

Source: Prepared by the European Sociology Centre from information available in the INSEE.

Table 6. RATE OF INCREASE IN ENROLMENTS BY DISCIPLINE AS COMPARED WITH 1960 AND WITH THE PRECEDING YEAR

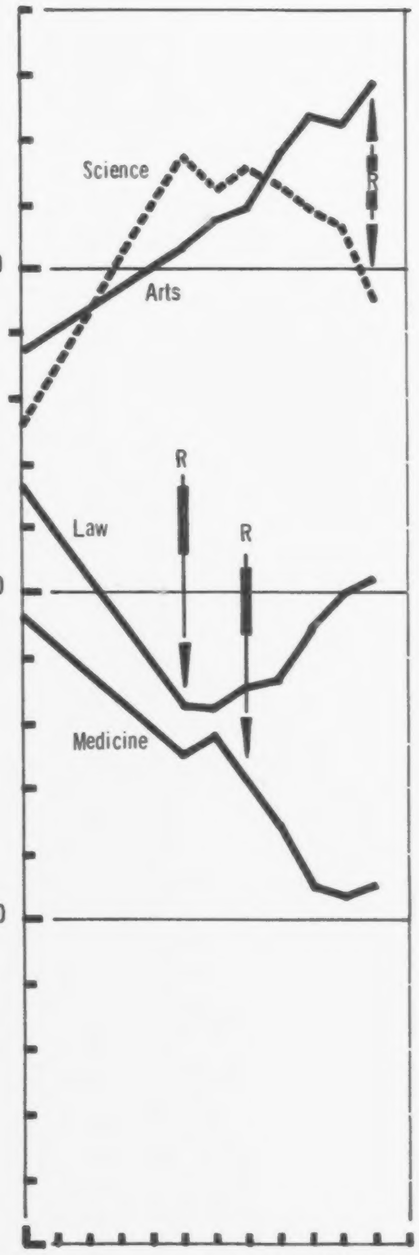
Year	Law		Medicine		Pharmacy		Science		Arts		All disciplines	
	1960	Preceding year	1960	Preceding year	1960	Preceding year	1960	Preceding year	1960	Preceding year	1960	Preceding year
1960-61	100	—	100	—	100	—	100	—	100	—	100	—
1961-62	114	114	118	118	107	107	111	111	116	116	114	114
1962-63	135	114	123	101	117	109	129	115	134	111	131	107
1963-64	159	113	130	103	124	106	148	110	163	114	151	111
1964-65	194	117	134	95	143	114	161	95	188	107	169	111
1965-66	229	116	136	108	158	110	179	109	210	107	190	112
1966-67	262	106	156	114	175	110	183	100	241	107	211	110

Graph 2

TREND OF THE RELATIVE PROPORTIONS OF ENROLMENTS IN THE FOUR DISCIPLINES BETWEEN 1956 AND 1967

This graph shows :

1. That the science and arts reforms occurred at a time when the Faculties of Science, and still more the Faculties of Arts, were overwhelmed by the number of students. It is still too early to judge the effect of these reforms on the trend of enrolments.
2. That the law and medicine reforms, on the contrary, occurred at a time when the share of these disciplines was declining. The Law Faculty reform resulted in a relative increase in the proportion of Faculty students. This was not so in the case of the reform of medical studies.[1]



---

[1] The fact that some Faculties include first-year medical students with science students as from 1962 cannot account for the continuous fall in the relative proportion of medical students up to 1966.

enrolments in the Faculties of Law fell steadily between 1945–46 and 1960–61, they began to increase in 1961–62, i.e. shortly after the reform came into practical effect, until a *real reversal of the trend* may be observed: in 1960, law seemed to have been deserted for the arts and sciences, after having been the most popular Faculty at the beginning of the century, but since that date the relative proportion of enrolments in the Faculties of Law has not ceased to rise.

Examination of the trend of the respective proportions of enrolments in the various disciplines shows that the Faculties of Law are tending to move nearer the Faculties of Science and further away from the Faculties of Medicine, whose relative share of enrolment is still falling (Table 5). In addition, since 1960, it is in the Faculties of Law that the highest growth rates have been recorded (Table 6). On the other hand, and although it was not undertaken in order to meet the pressure of numbers, the reform of medical studies does not seem to have had any effect on the spontaneous trend of enrolments in this Faculty. It is not impossible that by obliging students to take a full-time course the reform of medical studies has ultimately influenced the nature of the Faculty intake by turning away from a medical career those students who are obliged to finance their studies by extramural work, even part-time. The increase in enrolments in medicine is still small, the discipline's relative share of the total is steadily declining and its growth rate is the lowest of all.*

4. EVOLUTION OF THE EDUCATIONAL SYSTEM AND SIZE OF ESTABLISHMENTS

Because education is still a face-to-face relationship between teachers and taught (since the cost of automation and programmed education prohibits their general adoption for some time to come), the trend of enrolments is a demographic and statistical abstraction if it is merely measured at national level. Education is not dispensed by "the University" but in teaching units of varying institutional and morphological dimensions. The general statistics must therefore be amplified by a study of enrolments in the various establishments examined. Developments in the size of the Faculties are a practical illustration of the response of the higher educational system to the pressure of enrolments.

Insofar as Faculty size determines the extent and complexity of the administrative problems and insofar as an increase in size beyond a certain threshold results in a widespread disruption of educational norms, the university authorities have long been in the habit of uttering cries of alarm when the traditional number of enrolments is exceeded. The "giantism" afflicting certain Faculties, has led to attempts to define the ideal size of educational units. But the usually "impressionistic" estimates resulting from attempts to define the ideal size of a University, or even an optimum range of size, are scarcely conclusive: the layout of premises may turn a simple Lycée into an anonymous barracks or a campus of several tens of thousands of students into a living unit. However, owing to the absence of a university planning policy and to the difficulty of providing teaching and administrative staff, any tendency towards a reduction in the average size of higher educational establishments would in France be a sign of improvement.

---

* It should no doubt be remembered here that, apart from a few exceptions, the Faculties of Medicine train students for the exercise of a liberal profession. Better adaptation of courses to their professional ends is not therefore reflected so automatically in higher enrolments, since there are no firms in medicine, as there are in the case of legal careers, which can offer an incentive — in the form of an increase in the number of job vacancies — likely to affect new students' choices.

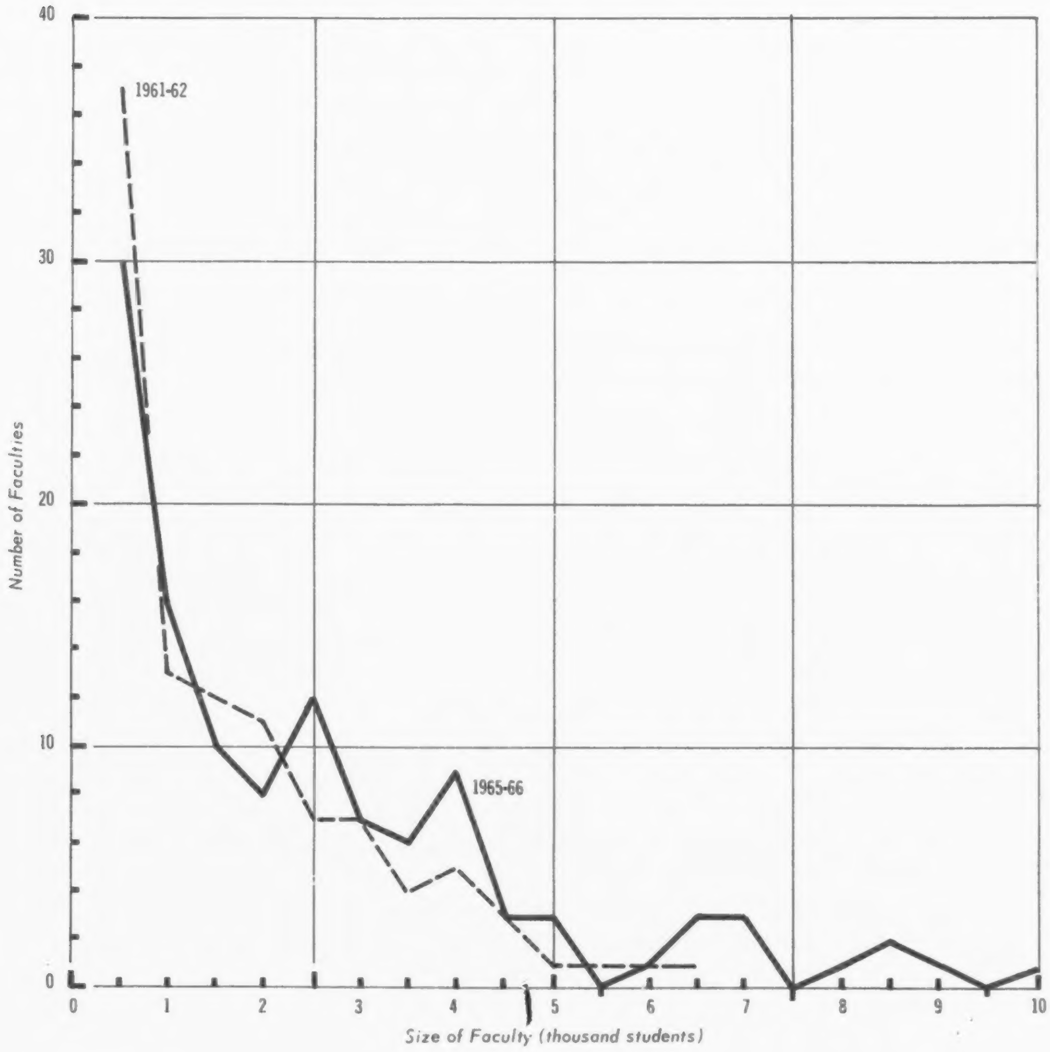
While the reform of higher education in arts and science represents a negative approach to the problem of numbers, since it aims at protecting the University from the rise in enrolments, the creation of new Faculties and university colleges offers a positive approach. From 1960 to 1967 seven Universities have been established, representing 25 Faculties distributed among the various disciplines. At the same time, 25 university colleges or isolated Faculties were also created. It is possible by studying the trend of the average size of the Faculties to measure the effectiveness of these new foundations: if they are really to provide a positive answer to the trend of enrolments, the new institutions must be able to offset the total numerical increase and even to reduce the size of the Faculties; otherwise, the new institutions would offer nothing new, since they would receive students into the same structures and the same working context as the old; while for the latter, a reduction in their enrolments is an indispensable condition for their rejuvenation.

A comparison of the average size of the Faculties in 1961–62 and in 1965–66 shows an increase from 1,259 to 1,950 students (excluding the Academy of Paris). In Paris, despite the creation of the Faculty of Nanterre and the Universities of Amiens, Rheims and Orleans, the average size rose from 12,499 to 17,107 students. The curves showing the Faculty distribution (including the university colleges of science and the university colleges of arts — CSU and CLU) by number of students (Graph 3) reveal that the number of small establishments fell from 1962 to 1966 despite the creation of the university colleges; furthermore, the number of establishments with over 2,000 students was greater in 1966 than in 1962; in addition, no Faculty except in Paris contained more than 6,500 students in 1962, whereas in 1966 there were eight of them.

It should also be noted that of the 30 establishments with fewer than 500 students in 1965–66, 20 are university colleges and only 10 are Faculties (all Faculties of Medicine). However, as we know, the university colleges do not offer students the same possibilities of choosing between the various disciplines and between the various specialities as the Faculties do. Moreover, they do not permit university studies to be pursued right through the course. Lastly, these establishments are almost always inclined to ask for their curricula to be expanded with the long-term objective of becoming a fully-fledged Faculty — with heavier enrolments that this change would bring; this ambition has already been achieved by a number of colleges during the last few years. There is therefore every indication that the possibility of studying in a small institution must be paid for, as things stand at present, by more limited choices and future prospects. It should also be noted that these institutions are located in small or medium-sized towns: fourteen of them are in towns of less than 100,000 inhabitants and the others (except two) in towns with less than 150,000 inhabitants. On the

Graph 3

DISTRIBUTION OF HIGH EDUCATIONAL ESTABLISHMENTS BY SIZE (NUMBER OF STUDENTS) IN 1962 AND 1966

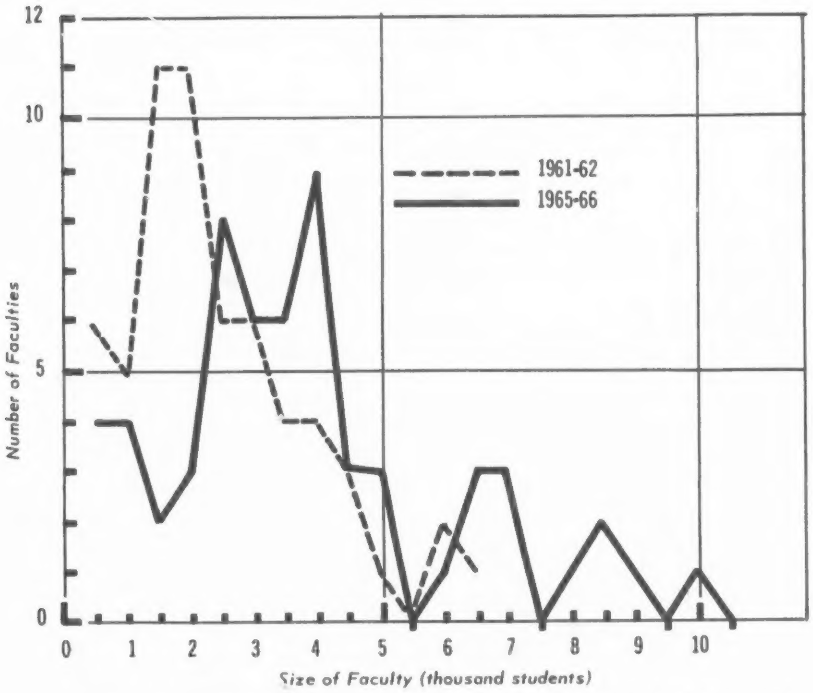


other hand, there are no Faculties with less than 2,000 students in towns with more than 250,000 inhabitants.* Small university institutions exist only in small towns.

A comparison can therefore be made only between complete Faculties which permit students to follow a normal course and choose between the various specialities and which are located in cities able to offer graduates sufficient outlets without obliging them to go elsewhere. The average number of students in Faculties created before 1960 was 2,211 in 1961–62; it had reached 3.545 by 1965–66.** The curves showing the distribution of Faculties by size in 1961–62 and 1965–66 have the same appearance, but the 1965–66 curve is further to the right: *in 1966, the "modal" Faculty had 4,000 students, whereas in 1962 it had 1,500.*

Graph 4

DISTRIBUTION BY SIZE OF ENROLMENTS IN 1961-62 AND 1965-66
(old Faculties)



Source : Informations statistiques, n° 86, and data from the Central Department of Statistics and Economics of the Ministry of Education.

The size of Faculties attached to Universities which have been subdivided since 1960 or which have had university colleges added to them recently might at least have been expected to diminish since 1961–62. But in fact, enrolments for almost all these Faculties have risen (see Table 7).

---

* Except in Nice.

** Excluding Paris.

Table 7. TRENDS OF ENROLMENTS IN UNIVERSITY FACULTIES WHICH HAVE BEEN SUB-DIVIDED, AND RATES OF INCREASE AND DECREASE IN THESE ENROLMENTS

Base 100 in 1962

University	Law		Science		Arts		Medicine	
	Enrolments	Rate of increase	Enrolments	Rate of increase	Enrolments	Rate of increase	Enrolments	Rate of increase
Aix-Marseille								
1962	2,138	170	5,788	147	5,053	158	1,834	161
1966	3,638		8,536		8,004		2,962	
Caen								
1962	708	199	1,947	131	2,113	172	338	107
1966	1,412		2,565		3,655		362	
Clermont								
1962	597	242	1,989	156	1,776	186	570	103
1966	1,445		3,107		3,316		588	
Dijon								
1962	1,048	196	1,352	176	1,775	167	260	88
1966	2,055		2,384		2,980		231	
Grenoble								
1962	1,472	153	4,410	142	3,497	161	308	166
1966	2,259		6,266		5,656		513	
Lille								
1962	1,350	250	4,085	130	3,829	158	431	522
1966	3,378		6,294		6,060		2,254	
Lyon								
1962	2,029	180	4,805	167	3,844	181	2,405	161
1966	3,653		8,062		6,983		3,885	
Paris								
1962	16,344	187	18,185	148	23,633	139	11,036	123
1966	30,660		26,995		32,898		13,582	
Poitiers								
1962	860	213	1,736	139	2,519	163	203	103
1966	1,834		2,423		4,109		210	
Rennes								
1962	1,163	220	3,243	112	2,628	178	888	100
1966	2,563		3,656		4,677		892	

Source: **Prepared by the European Sociology Centre from data provided by the Central Department of Statistics and Economics of the Ministry of Education.**

We note that, by 1966, 39 Faculties out of a total of 40 had increased in size relatively to 1962; in the case of 26 Faculties, the rate of increase exceeded 1.5.

Considering the increase of Faculty size by discipline, we note that the policy of containment failed, particularly in the case of Arts and Law; the increase in enrolments is less marked for Sciences and Medicine.

Table 8. AVERAGE NUMBER OF STUDENTS IN THE FACULTIES, BY DISCIPLINE (FACULTIES EXISTING IN 1960)[1]

Year	Law	Science	Arts	Medicine
1962	1,383	3,264	3,003	1,197
1966	2,530	4,751	5,220	1,679
Rate of increase	183	145	173	140

[1] Excluding Paris.

As from 1962, Faculties with less than 1,000 students were mainly Law and Medicine establishments. The creation of new institutions further emphasized this trend and, in 1966, the number of small Law and Arts institutions — already low by comparison with those of other disciplines — decreased, to vanishing point in the case of Arts. The decline was less marked for Law, while the trend remained practically unchanged for Medicine. On the other hand, Sciences and Arts initially accounted for most of the larger Faculties (those with over 4,000 students); the trend was even more pronounced in 1966. Consequently, it would appear that measures aimed at de-congesting the Faculties were effective only in those disciplines with the lightest inflow of students during the period considered, and were least effective in Sciences and Arts, which had the most need for them.

Table 9. NUMBER OF SMALL AND LARGE FACULTIES FOR THE VARIOUS DISCIPLINES IN 1962 AND 1966[1]

	Law	Science	Arts	Medicine
Less than 1,000 students				
1962	9	7	3	13
1966	4	1	0	13
More than 4,000 students				
1962	1	6	3	1
1966	1	9	13	1

[1] All Faculties, including Paris and the new Faculties. Excluding the university colleges.

In spite of the creation of a relatively large number of new establishments, the average size of the Faculties rose again between 1962 and 1966

The response of the university system to the phenomenon of rising enrolments has not therefore been sufficient in this respect to gather pace or even merely to offset the total increase in numbers at establishment level.

5. THE CHANGES IN THE EDUCATIONAL SYSTEM AND UNIVERSITY ARCHITECTURE

The rise in enrolments has no doubt been the decisive factor in university building policy since 1955. The primary aim of this policy has been to receive students applying for entrance to the Faculties and provide them with the elementary means of studying: the efficiency of university building policy may therefore be assessed by comparing the increase in the amount of building with the rise in student enrolments. From this angle, the educational investment effort made since 1955 is of course unprecedented: according to the estimates, the university buildings erected between 1960 and 1970 should completely renew the University's built-up property.

But although priority had to be given in university building to the problems raised by increased enrolments and although it is legitimate to judge it in the first place by its quantitative effectiveness, its many consequences nonetheless call for other criteria of appreciation. To begin with, the Faculties' accommodation requirements are only part of the requirements of higher education: claims also come from the large scientific institutions such as the Collège de France or the Ecole Pratique des Hautes Etudes, and specialist schools such as the Ecole des Chartes, as well as higher technical education and the Grandes Ecoles on the arts and science side. More generally speaking, the demand for premises for higher education establishments can be less and less easily dissociated from the requirements of research or even the cultural requirements of other sections of the population.

Furthermore, it may well be asked how far the increased volume of university building has been accompanied by an effort to adapt the traditional rules of building to the specific requirements of each type of establishment and each region, and especially to the requirements of educational innovation. In fact, both teaching and research activities are conditioned by the configuration of the space in which they are carried out, in addition to other external constraints: it is nearly always useless to hope to change teaching habits without breaking through the space barrier which symbolizes and perpetuates the most traditional teaching relationship. Thus, teachers' endeavours to extend and multiply their exchanges with students are destined to remain sporadic when the buildings do not contain daily meeting-places (restaurants, record clubs, cafeterias, etc.) and teachers studies or special classrooms are provided only sparingly.

The French educational system is highly centralized and administered by the Ministry of Education which, at regional level, delegates its responsibilities only to bodies representing the central authority, so that, in the field of construction as elsewhere, there is not much room for innovation and diversity, with their inherent risk of error or failure. University building excludes innovation because it is still subject to the many superimposed mechanisms which govern "programme appropriations" and the supervision of their employment. The system of decision-making characteristic of the French Universities, together with the expenditure control required in a centralized administration, make it inevitable that there should be a high degree of homogeneity in the many buildings erected in France during the last ten years. This explains why university building policy could provide only an overall answer to the rise in enrolments and why the solutions worked out at ministerial level, i.e. in Paris, have produced fairly similar results in spite of the wide variety of local situations. It should be noted, however, that the Ministry of Education acts in association with bodies depending on other ministries: for instance, the Territorial Development Directorate, promoted in 1963 to the rank of Delegation and attached to the Prime Minister, has considerable responsibilities in conjunction with the Ministry of Education for university location and building policy. It helps to draw up the "educational map" and is in a position to introduce non-university criteria into decision-making. Its aim seems to be to encourage the creation of multi-vocational "university complexes" covering a variety of different scientific and cultural activities related to the individual region's industrial, technical and intellectual needs. A typical example is provided by the Rangueil-Lespinet complex in the Toulouse region, where side by side with a Faculty of Science are many research or higher technical training institutes (CNRS Centres and, as from 1968, the Ecole Nationale Supérieure d'Aéronautique hitherto located in Paris). The "Plans" themselves make specific recommendations on building policy on the basis of forecasts of accommodation requirements.

Thus, the need for a concerted answer to the challenge of increasing enrolments has finally been acknowledged in university building policy. But the need for more premises and facilities has concentrated most attention and efforts on those institutions which are most threatened by the population increase. For this reason the parallel institutions of higher education, such as the research institutes and to a smaller extent the specialist schools and the Grandes Ecoles, have so far been somewhat neglected by university building policy, especially in the Paris area. The real expansion (though still inadequate as compared with Paris student enrolments) of building for the Faculties (Faculty of Science at the Halle aux Vins, Faculty of Arts at Censier, Faculty of Law in the rue d'Assas) forms a contrast to the stationary position in most of the Grandes Ecoles, the Ecole des Hautes Etudes and the CNRS.

On the whole, we may ask whether quality and aesthetic value or, more simply, originality, have not been sacrificed in the new buildings to what was regarded as the imperative and absolute need to meet a demand conceived only in terms of the number of places, i.e. in short, of square metres. Numerous critics both inside and outside the University deplore the lack of audacity and variety of the university units that have been built with ever greater rapidity over the past few years. In fact, French university building policy does not seem to permit experiment or *avant-garde* ideas, even for certain special projects. When assessing this policy, the Director of Educational Equipment described the architecture it had inspired in cautious terms as "restrained" and "sober" and explicitly related this aesthetic "sobriety" to the constraint of costs.* It is difficult to appraise this choice without entering into both an economic and a political discussion and calling in question the priorities of the French budget. Obviously one may wonder whether, as certain *avant-garde* architects who have not been approached by the Ministry of Education assert, a more decentralized or more audacious decision-making process might not, for an equivalent cost, have led to less conventional and more varied architectural achievements. Although it is difficult to judge the objectivity of a protest which remains traditionally the act of marginal artists, the administrative inflexibility of the Ministry of Education's contract-awarding system should nonetheless be noted: 80% of the buildings are erected without an architect and the remaining 20% are shared between a small number of architect firms which are invited to tender.

---

* Cf. J. Raynaud, *L'architecture française*, No. 275–276, July–August 1965, p. 78.

There appears to have been no decisive advance in ideas concerning the aims and functions of university buildings. No theory has yet been produced on which specifically university planning can be based. This is quite obvious when we observe that the discussion on this subject is confined to the animated but elementary debate for or against the university campus. The articles written or attitudes taken in this academic debate make use of the same arguments, and the sociologists, surveyors and town planners have not succeeded in imposing any redefinition of the problem which would take account of the changing demands of teaching and, still more, of changes in the relationship of the various population groups to education. Thus, in spite of the extent of the university building effort, it is difficult to find any innovating trend in French building policy.

IV

REFORM AND THE DEMOCRATIZATION OF RECRUITMENT

1. INTRODUCTION: THE IDEOLOGY OF DEMOCRATIZATION FACING THE TEST OF REALITY

The "praises of education" are no longer reserved for speeches at prize-giving ceremonies but have crept into prefaces of books on economic growth and opening addresses at seminars; nowadays they stem from the confusion between the ethical or political *value* of the democratization of education and the economic *profitability* of that enterprise: to give all children equal opportunities of acquiring instruction and training is not only a task of strict justice which a democratic society cannot evade, it is also and above all, the first requirement of an industrial society which intends rationally to achieve its main target of continuous growth. There is no lack of metaphors such as "wasted talents", "intellectual resources lying fallow" or "unused brainpower" to give this official certainty the coherence and credibility of a vulgate.

There can be no question here of examining the economic postulate on which the show literature on "education and growth" is based and according to which educational expenditure should be treated as a productive investment in the strict sense. We would merely note in passing that certain very simple data appear recently to have cooled the ardour of those who champion this theoretical simplification:* for example, of all the European countries, Britain devotes the largest proportion of its national product to expenditure on research and education and has the lowest growth-rate, while in Italy the economy is developing rapidly in a country which suffers from one of the most archaic systems of higher education.*

---

* By and large, no-one would dispute the fact that educational investment is one of the prior conditions for any economic development, but this formula is true only so long as it remains vague and general. Those authors who are more interested in exact economic proof than in sermons or rhetoric have always pointed out that the conventional demonstrations of education's share in a given process of growth were approximate and subject to caution since they were bound to assume a great number of invariables and to include, more often implicitly than explicitly, the clause "all other things being equal".

But the idealistic identification of the most equitable educational policy with the most profitable one provokes another criticism. Paradoxically enough, in questioning this article of the technocratic credo we might find the conservative lucidity of Pareto, contesting that economic development requires more than moderate democratization and social mobility,** alongside the objectivity of the sociologist, who sees only the slow pace, not to say immobility, or in some cases decline, of the democratization of social recruitment for higher education in the developed countries, even during periods of economic growth.

Statistical observation alone cannot permit any conclusion regarding the democratization or non-democratization of education and still less any decision between a good technocratic conscience and Pareto's cynicism or between political criticism of educational inequality and the optimistic belief in the inevitability of democratization on which Durkheim's analysis of contemporary society was already based.*** Between the sociologist who sees industrial societies obliged to democratize their educational system – by the very logic of industrial development and whatever the economic or political system – and the sociologist who sees the veneer of "meritocracy" typical of modern society as an improved form (thanks to educational consecration) of the heredity of social and cultural privilege, the purely technical discussion of figures and statistical series is never conclusive: faced by the slow increase in the poorer classes' share in higher education, one side can always say "it isn't much", while the other can say "it's still better than nothing and a bit more than yesterday or the day before". When it comes to forecasting the future course of such an uncertain trend as the *equalization of educational opportunities among the various social*

---

* The British economy's growth-rate over the period 1938–1963 was 171 in 1963 (1938 = 100) whereas the same calculation gives a rate of 231 for Italy and 218 for France. Inversely, the United Kingdom is top for the proportion of GNP devoted to expenditure on education in 1962 with a rate of 4.73 %, followed by Italy with 4.25 %, France with 3.81 % and Germany with 3.26 % (*Sources*: R. Poignant, *L'enseignement dans les pays du Marché Commun*, IPN, p. 230, and Darras, *Le partage des bénéfices*, Editions de Minuit, p. 52).

** Pareto's conventional reasoning is still formally irrefutable: an "élite" which does not wish to disappear merely has to have an educational system which enables it not to lose the "best minds" born in the working classes and to draw on "average capacity" among its own members without striving in this case to provide equality of opportunity for lower-class children; this set-up has the advantage, moreover, of ensuring social continuity. This process would not run counter to economic efficiency, at least for the moment, since the most developed nations have so far been able to satisfy their requirements of qualified executives without stretching the social basis of recruitment for higher education beyond the middle strata. Better still, arguing exclusively in terms of cost, it is preferable, although directly counter to educational justice, to recruit the general run of students in those social strata whose culture is nearest to the level of academic education rather than to go and "rescue" them from a worker or peasant environment at the cost of a greater and necessarily more expensive pedagogical effort.

*** Speaking of modern societies in which the division of social labour is more and more advanced, i.e. what we commonly call today the industrial society, Durkheim wrote: "While they (such societies) endeavour and must endeavour as far as possible to remove external inequalities, it is not only because this is a noble enterprise but because *society's very existence is involved in this issue*". (E. Durkheim, *De la division du travail social*, PUF, 7th edition, Paris, 1960, p. 374).

groups, the former can always extrapolate the most imperceptible movements to infinity, while the latter will take any stoppage or slowing-down as a sign of the limits of the educational democratization process in a particular social structure.*

Thus, as regards the democratization of higher education in France, the observer must note *both the existence and the weight of the ideology of equal opportunity in the official reasons adduced for educational reforms and the small effect of the changes in university organisation or curricula on the social recruitment of students.*** We are then faced with a dilemma: we must either have confidence in the proclaimed ideology in spite of the actual results of the enterprise it governs ("artificialist" attitude which the reformer is inclined to adopt) or we must reinterpret the functions of that ideology in the light of the real results which it dissimulates ("functionalist" attitude which the sociologist tends to favour).

Although the results presented here are not sufficient to validate the assumption that the democratic ambitions professed by the reformer are illusory, we make no secret of our opinion that the second type of interpretation gives a fully sociological insight into the relationship between the practical functioning of the college and its democratic ideology; this applies both to the technical function of the University which, in a technician society, must ensure the requisite limited *minimum* of social mobility and to its function of legitimation, whereby it helps to preserve the "social order" by perpetuating the *maximum* of acquired privileges in the same classes from one generation to the next. It might then be suggested that the democratic reasons allegedly underlying French higher educational reform are intended just as much to contribute towards the growth of an industrial society as to legitimate (in the only way possible in a society excluding direct invocation of "birth" and continually diminishing still further the efficacy of inherited economic capital) the social and cultural inheritance which any established order tends to preserve against redistribution in each generation.*** We readily agree that modern society is bound to invoke – and to a certain extent to put into practice – the democratic ideal of equal educational opportunity, but we would add that this is not exclusively nor perhaps even mainly for the reasons stated in its proclaimed ideology. Durkheim had asserted, long before the educational planners, that "our society's very existence is involved in this issue"* and took the sociological analysis still further (perhaps because he combined the ingenuity of a conservative with the lucidity of a sociologist) when he related the modern ideology of the "free play of natural abilities" not to the hypothetical economic profitability of the principle of equal opportunity but to the need to perpetuate the social order, a need which assumes a new form in modern society: (when organic solidarity becomes predominant), "the friction which occurs can no longer be so completely neutralized. Common feelings are no longer strong enough to keep the individual attached to the group; subversive tendencies no longer have the same counterweight and come to light more readily... The social organisation no longer has the same strength of resistance, yet at the same time it is being subjected to fiercer attack... At the very moment when the flood surges more dangerously and more violently, the dike which held it back is weakened and the danger is therefore heightened".*

---

* Thus, the social and cultural features distinguishing working-class children who go to the University from other children in the same socio-occupational category seem to indicate that students of working-class origin come in fact from the top fraction of the underprivileged strata and that this class's educational opportunities will consequently tend to level off when this marginal category, which is really not very representative of the class as a whole, has been educated: confirmation may be found in the fact, that, after rising regularly, the proportion of workers' sons in secondary education is tending now to settle at about 15 % (see P. Bourdieu, and J.C. Passeron, *Les Héritiers,* Editions de Minuit, Paris, 1964, pp. 42–43).

** Although the French Faculty reforms were put into practice too recently for this general proposition (which we shall not attempt to illustrate) to acquire its full significance, comparative educational sociologists can refer to other experience to support the thesis that the democratization of recruitment is *relatively independent* of educational innovation: the greatest numerical variations in the educational opportunities of the poorer classes are connected much less frequently with an "educational revolution" than with changes in a nation's social and political structure (see the educational statistics of the socialist countries, R. Castel and J.C. Passeron, *Education, démocratie et développement,* Mouton, Paris, 1967, pp. 223 to 240).

*** A more detailed analysis of the dual social and technical function of the schools in the so-called industrial society will be found in l' "examen d'une illusion", P. Bourdieu and J.C. Passeron, *Revue française de sociologie, Sociologie de l'éducation,* Special issue 1967–68, particularly pp. 249 to 252.

It is true that the democratic ideology of education has more of a symbolic function than any really democratizing effect, and it is true in particular that it performs, *inter alia,* the secret function of legitimating that portion of the cultural and social heritage accepted by modern society by procuring for it the irreproachable sanction of education. It is therefore not surprising that the most ambiguous or most misleading signs are generally quoted as evidence of the democratization of recruitment in higher education. Because the total increase in enrolments produces spectacular chaos and is expressed in easily disseminated statistical data, the tendency is frequently to *identify the democratization of a branch of education with an increase in the enrolment rate for an age-group.* For anyone who refers to the sociological categories spontaneously suggested by common experience and adopted in the infra-sociological analysis made in the general Press, the rise in the number of "young people" enrolled, taken independently of their distribution by social background, sex and geographical origin does, in fact, justify a confused impression of "democratisation". But while the tendency in common parlance, as in certain statements by the authorities is to confuse the democratization of recruitment with the rise in enrolments or, what comes to the same thing, to present the former as the necessary result of the latter, this is not solely the consequence of a casual view of the sociological problem of democratization. On closer examination, this conclusion is due to the ideology predominating in most technically developed societies: they tend, in fact, to picture themselves as societies in the process of "growing cultural homogenization" and are at once inclined to measure their progress along this path against criteria which would be valid only if they were what they think they are but which in reality can, paradoxically enough, only confirm what they wish to believe. It is no accident that the continual increase in enrolment rates for the various age-groups is so often taken as a measure of the progress of educational democratization: by substituting a statistical abstraction for differential analysis of the educational opportunities of the various social groups, we obtain the imaginary confirmation of an imaginary idea of contemporary society through the very means suggested by that imaginary idea.

---

* E. Durkheim, *De la division du travail social, op. cit.*, pp. 373–374.

As we had to determine the rate at which the democratization of higher education proceeded in France during the 1960–66 period when reforms were introduced successively into the various Faculties, we have endeavoured to take the term "democratization" in its narrowest sense. Since the democratization of education is ideally typified by a model society in whose extreme form all individuals have the same initial chances of access to education and scholastic success, quite independently of their social and cultural origins, the position of an educational system in this process has to be assessed by analysing enrolments over the course of time, with special reference to social and cultural criteria and in particular sex and membership of the various socio-occupational groups.*

The effect of French higher education reforms on the social structure of student recruitment can appear in the statistics only in the case of the Faculties of Law and Medicine, which were affected by reform even before 1960. However, the trend during the period 1960–66 is not without interest in this respect even in the case of the Faculties of Arts and Science, which were reorganised only at the beginning of the 1966 academic year.** Logically, in order to judge the effect of a reform on a social process, it is indispensable to know the rate at which that process is developing, *all other things being as equal as possible,* in the absence of the factor whose causal importance we wish to ascertain. A fairly convenient experimental situation is therefore obtained by comparing the trend of the democratization of recruitment in the Faculties of Law and Medicine, on the one hand, with the same trend in the Faculties of Arts and Science, on the other, during the period 1960–66.

2. INEQUALITY OF ACCESS TO HIGHER EDUCATION IN RELATION TO SOCIAL ORIGIN

Trend of enrolments and trend of the social structure of enrolments in the various Faculties between 1961 and 1966

The rise in total student enrolments does not permit any opinion on the social significance of the phenomenon: this may just as easily correspond to the real democratization of higher education as the perpetuation of the *status quo* or even in some cases a decline in the democratization of recruitment.* An increase in an age-group's enrolment rate may almost exclusively benefit the social groups which already had the highest rate, or at least in proportion to the previous unequal distribution of enrolments. More generally speaking, the increase in enrolments is the result of several factors: although in France the increase in the number of students reflects (at least since 1964) both larger age-groups (as a result of the rise in the birth-rate after 1946) and a higher enrolment rate for the over-18 age-groups, the breakdown of this total enrolment rate between the enrolment rates for the various socio-occupational groups may in fact have changed much less than might be assumed from the continuous rise in the total rate of higher education enrolments. We should not, therefore, confine ourselves to enrolments in the abstract but should analyse the structure of student numbers from the point of view of their social origin, as roughly measured by the INSEE's breakdown of the active French population by socio-occupational categories.

---

* Although it does not directly concern the operation of higher education proper, an indispensable complement to the analysis of equal social opportunities could be obtained by examining the chances of professional success of students from different social circles but holding the same diplomas: thus, assuming the democratization of higher education to be complete, it can have a very different sociological significance according to the career opportunities on the employment market available to the holders of identical diplomas in the light of their social past; when the social system attributes different professional return on education in the light of, for example, "social relations" or any other "quality" connected with the student's origins, then opening the universities to the poorer classes acquires the objective function of camouflaging the inequality of social opportunities in real life (the reader is referred, for example, to the importance of this phenomenon in Greece: J. Lambiri-Dimaki, "Educational Opportunities in Greece", in *Education, démocratie et développement, op. cit.*, p. 112).

** Apart from the fact that, to our knowledge, no study has been made of the trend of the democratization of French higher education over this period on the basis of systematically comparable statistics.

The distribution of students by social origin between 1961–62 and 1965–66 shows that there is no decisive trend (see Table 10 and Graph 5). Out of every 100 students, 32.5 came from the upper classes in 1961–62, and 31.5 in 1965–66. The proportion of farm workers' and farmers' children was as low in 1965–66 as in 1961–62, since it did not exceed 6.4%, as against 6.2% at the beginning of the period. Workers' children would

Table 10. SOCIAL ORIGIN OF FRENCH STUDENTS
BETWEEN 1961–62 AND 1965–66 – PERCENTAGE BREAKDOWN

Social origin	1961–62	1962–63	1963–64	1964–65	1965–66
Farm workers	0.6	0.5	0.6	0.7	0.6
Farmers	5.6	6.5	5.4	5.5	5.8
Service industries	0.9	1.0	1.0	1.2	1.1
Workers	6.4	7.9	7.6	8.3	9.4
Total working class	*13.5*	*15.9*	*14.6*	*15.7*	*16.9*
Crafsmen–tradesmen	13.7	13.4	12.3	13.3	12.2
Office workers	7.9	7.4	8.6	8.2	8.6
Middle management	17.8	17.4	17.8	17.7	16.7
Total middle class	*39.4*	*38.2*	*38.7*	*39.2*	*37.5*
Professions Senior executives Businessmen	*32.5*	*29.3*	*32.5*	*33.1*	*31.5*
Not gainfully employed (other categories)	14.6	15.1	14.2	13.0	14.1

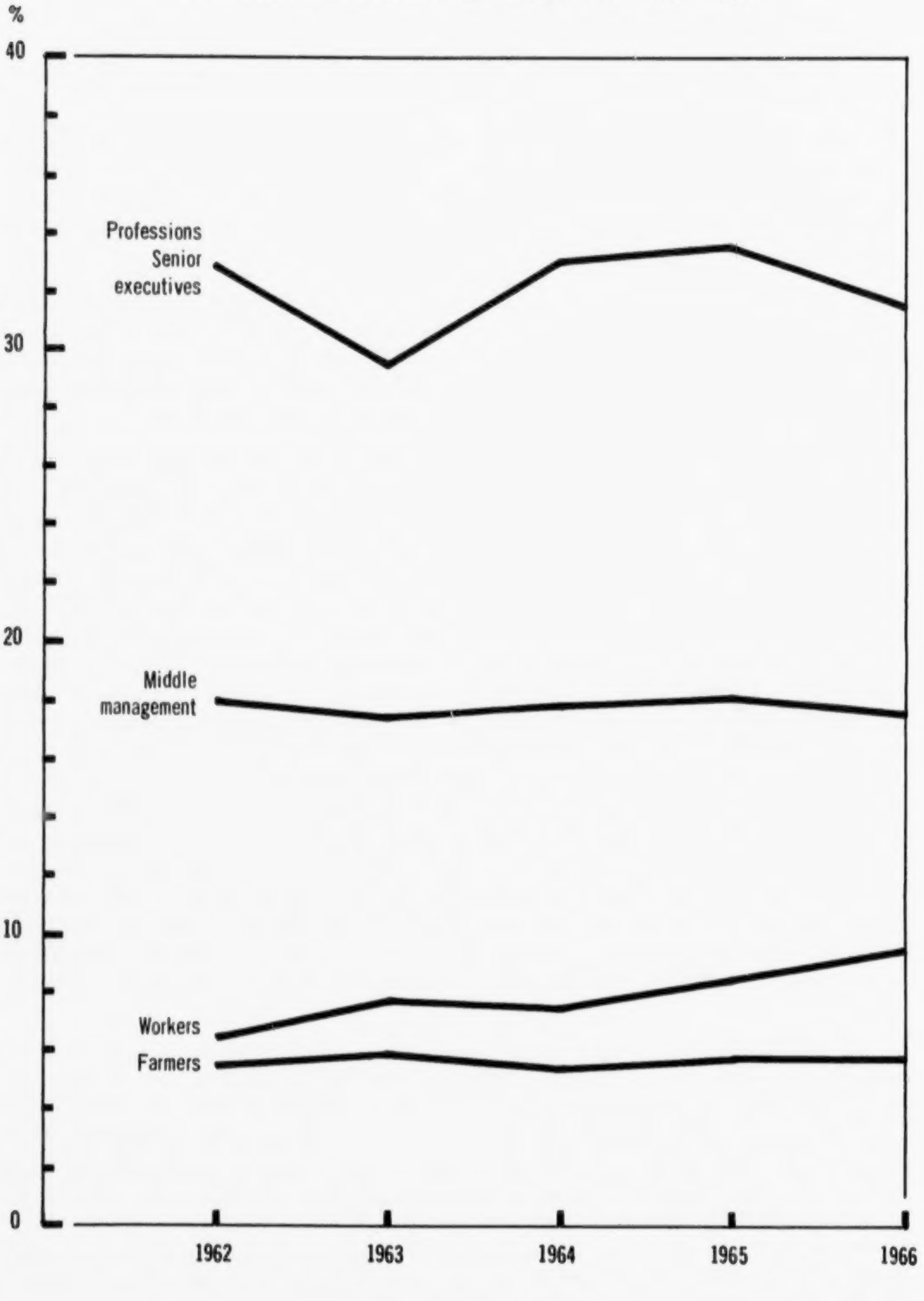
Source: *Informations statistiques* Nos. 53–54, 69, 76 and 86, and the Central Department of Statistics and Economics of the Ministry of Education.

---

* This assumption is never completely ruled out – at least for one type of education – even in an expanding branch and a growing society. An indication of this tendency will be found in the trend of recruitment for medical studies (Table 12).

Graph 5

TREND OF THE PROPORTIONS OF CERTAIN SOCIO-OCCUPATIONAL GROUPS IN HIGHER EDUCATION BETWEEN 1961 AND 1966



appear to be better represented in 1965–66 (increase from 6.4% to 9.4%), but variations of this kind cannot be regarded as very significant in view of the conditions governing the preparation of university statistics; variations of the same kind may easily be observed which do not express any trend: for instance, in 1963–64, the proportion of children of senior executives regained the 1961–62 level after having fallen by over 3% in 1962–63. We are obliged to note the almost complete immobility of the social structure of the student population between 1961–62 and 1965–66.*

The trend of participation by the various social strata in the benefits of higher education does not indicate any appreciable change in the social composition of the Faculty population. The increase in enrolments is not therefore the result of any mass entry of working-class children or even of middle-class children into the University.**

However, differences in the social future for which the different types of study are a preparation make it necessary to examine the trend of the social recruitment of students in the various groups of Faculties, especially as some have been affected by educational reform during the period concerned, while others have continued to operate on the old lines.

While the Faculties of Law and Medicine are usually regarded as "bourgeois", recruitment for the Faculties of Science is generally considered to be more democratic and this trend is expected to become more pronounced. The study of science is regarded as being more suited to the "tastes" and "aspirations" of working-class parents who wish to provide their children with a training that reduces to a minimum the uncertainties of entrance to a profession. Furthermore, while it is sometimes agreed that the aptitude for literary studies may depend to some extent on the child's cultural heritage from his family environment, it is less readily conceded that the same applies to the aptitude for scientific studies, which appears to stem solely from the distribution of "natural gifts". Lastly, perhaps because it seems to authorize a less ambiguous sanction of learning, the study of science is regarded as "more rational" than the study of arts; it is therefore felt that the social and cultural handicaps weighing on working-class students of arts or law should not impair the success of science students. In fact, in 1961–62, the highest proportion of working-class children was found in the Faculties of Science and this was still true in 1965–66. More generally speaking, the proportion of students of working-class origin in the Faculties of Science rose from 16.6% in 1961–62

---

* Having regard to the existing documentation, these percentages have been calculated on the basis of total student enrolments independently of their year of study and not on the basis of the intake figures for the year concerned. It might be objected that the weight of the older students increases the inertia of the overall structure and makes it more difficult to determine any trend; however, it should be noted that this reservation is not valid in the case of a continuous tendency towards democratization, since in that event the weight of the older structures would affect the figures for 1961–62 just as much as those for 1965–66 and the trend would still be perceptible.

** It should be noted that the proportion of students who are the sons of members of the liberal professions and senior executives is probably lower here than it really is for the student population as a whole. Higher education statistics take account only of students enrolled in the Faculties; students at the scientific Grandes Ecoles do not usually enrol in the Faculties and, as we know, an even larger proportion of the places in the Grandes Ecoles are filled by students from the more favoured classes (see note p. 74).

Table 11. TREND OF STUDENTS' SOCIAL ORIGINS IN THE VARIOUS FACULTIES BETWEEN 1961 AND 1966

Social origin	Before reform				Reform applied			
	Science		Arts		Law		Medicine	
	1961–62	1965–66	1961–62	1965–66	1961–62	1965–66	1961–62	1965–66
Farm workers	0.6	0.9	0.8	0.7	0.4	0.4	0.2	0.2
Farmers	6.3	7.0	5.9	6.3	5.3	4.6	3.7	3.0
Service industries	1.1	1.0	0.9	1.3	0.8	1.3	0.6	0.5
Workers	8.6	12.4	7.2	10.9	4.8	6.9	3.1	4.2
Total working class	*16.6*	*21.3*	*14.8*	*19.2*	*11.3*	*13.2*	*7.6*	*7.9*
Office workers	9.1	8.3	6.0	9.5	9.4	9.0	7.7	7.0
Craftsmen—tradesmen	14.4	11.9	13.6	11.9	12.7	12.3	10.7	12.2
Middle management	16.9	17.7	23.0	18.0	16.2	14.7	12.9	14.6
Total middle class	*40.4*	*37.9*	*42.6*	*39.4*	*38.3*	*36.0*	*31.3*	*33.8*
Professions, senior executives, businessmen	30.1	29.0	30.4	26.2	31.2	33.8	39.0	43.7
Total upper class	*30.1*	*29.0*	*30.4*	*26.2*	*31.2*	*33.8*	*39.0*	*43.7*
Other categories	7.8	6.5	6.1	8.5	9.2	7.8	15.7	5.3
Private means — not gainfully employed	5.1	5.3	6.1	6.7	10.0	9.2	4.4	9.3

Source: Informations statistiques, Nos. 53–54 and Central Department of Statistics and Economics of the Ministry of Education.

to 21.3% in 1965–66, although this phenomenon could not be related to any features specific to the study of science since the same trend could also be observed in the Faculties of Arts, where the proportion of working-class students rose from 14.8% to 19.2%. But it is difficult to take this slight indication as the sign of a definite trend towards democratization, since during the same time the proportion of middle-class students fell from 40.4% to 37.9% in the Faculties of Science and from 42.6% to 39.4% in the Faculties of Arts, which shows that the proportion of upper-class students remained in the end more or less constant (30.1% in 1961–62 and 29% in 1965–66 in the case of science). It should be added that the statistics on the social origins of the Faculty population are particularly deceptive in the case of science: the trend of the Faculty population shown in fact conceals the real social recruitment of science students as a whole (including pupils of Grandes Ecoles). Thus, owing to the number and level of the Grandes Ecoles, as well as the principle and factors of orientation, the Faculties are (as the teachers complain) specifically relegated to the role of lesser institutions, because among other things they provide the smallest chances of a profitable career. In view of the undeniably more bourgeois nature of recruitment for the scientific Grandes Ecoles,* science studies, regarded as a general system based on interlocking hierarchies, are in the end not remarkable as a privileged place for the democratization of higher education.**

In the light of the above analysis, it was rather in the Faculties of Arts that a fairly clear trend could be observed towards a change in the social structure of the student population between 1961 and 1966, although the significance of this change may be interpreted in different ways. While the proportion of working-class students rose from 14.8% to 19.2%, the proportion of upper-class students fell during the same period by 4.2%. Although Faculty of Arts recruitment is still a long way from the critical level beyond which its composition would be radically different from that of the other Faculties, since the various social groups are still represented in inverse proportion to their representation in the total active population, it may nonetheless be regarded as less bourgeois than in the other disciplines, including science. However, insofar as the social structure of the student population as a whole has remained appreciably the same, the slight increase in the proportion of working-class students in the Faculties of Science, and especially in the Faculties of Arts, can hardly be interpreted as the precursor of a general trend. If we consider the fact that the social structure of recruitment in the Faculties of Medicine and Law shows the opposite tendency, the increase in the proportion of students of working-class origin in the Faculties of Arts and Science may even be interpreted as a sign of the increasing *relegation* of these students to certain types of study that have gradually been abandoned by students from the wealthier classes (see pp. 76 and 77).

* Suffice it to recall that the proportion of upper-class students at the Ecole Polytechnique was 62% in 1961–62; it was 60% at the ENS (rue d'Ulm). At the same time, the proportion of Faculty students of the same origin was 45% in science and 44% in arts.

** A development of this analysis will be found in the article by M. de Saint-Martin, "Les facteurs de l'élimination et de la sélection différentielle dans les études de sciences" (The factors of elimination and differential selection in the study of science), *Revue française de sociologie, Sociologie de l'éducation*, Special Issue 1967–68.

In view of the date of application of the reforms in law and medicine, the influence of such measures on the social structure of the student population began to be felt from 1961–62 onwards. From that date the effect of the Law Faculty reform was felt in the trend of the total number of students in that discipline.* The reform of law studies seems to have had no effect whatever on the trend of the social composition of the student population; the differences observed are too small to be significant: the proportion of upper-class students is slightly higher in 1965–66, as is the proportion of working-class students, whereas the proportion of middle-class students is down by 2%, so that the social structure of the Law Faculty population may reasonably be regarded as having remained the same. By adapting this type of course to professional demand the reform led to a definite increase in enrolments; on the other hand, it had no measurable effect on the social composition of such enrolments.

The case of medical studies would appear to call for a more pessimistic conclusion. Between 1961–62 and 1965–66, this Faculty was gradually narrowing down its public: the proportion of upper-class medical students rose from 39% to 43.7%, while the proportion of working-class students remained almost the same at 7.9% as against 7.6%. The reform of medical studies resulted in a reorganisation of the system of instruction; a new type of establishment was introduced, the examination system was changed, new subjects were included and the share of the traditional disciplines was reduced; but in spite of being extensive and systematic, this reform has had no effect on the social composition of the student population. In 1965–66 as in 1961–62, the study of medicine was the preserve of upper-class students. The reorganisation of the Faculties of Medicine bears no direct relation to the democratization of recruitment in these Faculties. Professional heredity has no doubt hardly diminished and, as we know, it is in the Faculties of Medicine that it is the strongest.**

Thus, the increase in higher education enrolments went hand in hand with a high degree of stability in the social structure of the students population. Furthermore, the distribution of the different categories of students among the various types of Faculty remained much the same: the Faculties of Arts, and to a smaller extent the Faculties of Science, were still the refuge of a higher proportion of working-class students, while law and especially medicine continued to be reserved territory. However important they may be, the reforms of law and medical studies do not seem to have democratized recruitment in these disciplines.

These conclusions, based on an examination of the relative proportions of the various social groups in the student population, have a descriptive significance: when we think of the many effects of the numerical preponderance of one social group in an environment as sensitive to symbolical behaviour as the student environment (establishment of standards, dissemination of models, forms of dissemination, techniques of influence, domination, and the cultivating process in general), there can be no doubt that the typical student is in each Faculty, roughly the same as he was in previous years — even though the ideological content of his opinions changes with the winds and storms that shake the intellectual environment. The majority of students are still recruited from the more cultured social classes, so that the cultural models associated with this recruitment have every chance of being imposed on the student minority from other social classes. However, although it is of descriptive value, the examination of relative proportions — which does not refer to the unequal size of the social groups from which students come (and especially these groups' trend over the course of time in the active population) — does not, strictly speaking, justify any assertions concerning the trend of opportunities of access to higher education in relation to social origin: the problem of democratization can be properly formulated only in the language of *probability*.

---

* See Graph 2.

** In 1955, students whose fathers were members of the medical and allied professions accounted for 23% of all medical students in Paris (see J.D. Raynaud and A. Touraine, "Deux notes à propos d'une enquête sur les étudiants en médecine" (Two Notes on a Survey on Medical Students), *Cahiers internationaux de sociologie*, 20, January–June 1956, pp. 124 to 148). According to a survey carried out by J.C. Passeron and M. de Saint-Martin for the European Sociology Centre, this proportion was 21% in 1964.

Trend of the probability of access to higher education and the conditional probability of entrance to the various Faculties in relation to social origin

In order to obtain a numerical approximation of the inequality of the socially conditioned opportunities of access to the University, and especially in order to analyse the trend of that inequality over the course of time, the number of students in a socially defined category has to be related to the total number of young people of the same age with the same social characteristics. The increase in the proportion of students from a particular social category may reflect not the greater opportunities of access to higher education for adolescents belonging to this category, but only the increased proportion of this category in the active population. For this reason, it is only by calculating the probability of access to higher education according to the original socio-occupational category, sex or any other criterion that we obtain the most exact formulation of the order of magnitude of the inequality of socially conditioned educational opportunities and their range. We have therefore made the following beginning and end-of-period calculations in order to find a more precise answer to the question of the possible influence of the reforms on the democratization of higher education:*

a) Probability of access to higher education by a particular individual according to his social origin and sex, using the following formula:

$$\frac{\text{Number of new students of a given sex and from a given socio-occupational group}}{\text{Total number of children of the same age and the same sex belonging to the same socio-occupational group.}}$$

b) Probability of access by male or female students from a particular social group to a given type of study (assuming he or she has gained access to higher education). This second probability is expressed by the following ratio:

---

* This is the procedure used, for one year only, in *Les Héritiers* by P. Bourdieu and J.C. Passeron, Editions de Minuit, Paris, 1964.

$$\frac{\text{Number of students of a given sex enrolled for the first time in a given discipline and originating in a particular socio-occupational group}}{\text{Number of students of that sex enrolled for the first time at the University and belonging to the same socio-occupational group.}}$$ [*]

Calculating the opportunities of access to higher education and the conditional probability of undertaking a particular type of study is not only the best way of quantifying the range of educational opportunities in a given country, it also explains the reactions and attitudes of the various social groups to the University.[**] If the "vocation" and educational orientation of children depend to some extent on the family's "desires", "tastes" and "level of aspiration", it must be admitted that these desires and this level of aspiration are themselves determined by the objective probability of access to or success in a particular level or type of study which is related to the social group. Even if they are not consciously estimated by those concerned, variations in objective educational opportunities as revealed by immediate experience (if only through acquaintance with a varying number of persons who went to the University or left school at 14 years of age) are responsible for a different picture of higher education in each different social group: according to whether access to higher education is felt even vaguely to be an "impossible", "possible" prospect for the future, the reactions of families and adolescents and their level of aspiration tend to settle at what they can "reasonably" hope for. By thus provoking a subjective estimate, the state of a group's objective opportunities becomes, through a process of interiorization of its objective destiny, one of the means whereby that objective destiny is achieved, for example through the ideology of "realism".

The table of opportunities of access to higher education shows considerable differences for 1961–62 between the various social groups. Thus, a farm worker's son had 1.2 chances in 100 of engaging in higher studies in 1962 and a businessman's son more than one chance in two. Calculating the probability of access provides a numerical estimate of the *range of inequality* and therefore shows the conservative nature of a university system which at that time eliminated practically all working-class youngsters.

---

[*] Table 12 shows that the figures for 1961–62 are not exactly the same as those published in 1964 in *Les Héritiers* (*op. cit.*): the data available at that time made necessary a number of indirect estimates which are now pointless. In any event, the scale of opportunities commented on in that work is unchanged when compared with the more reliable figures obtained by the new calculation. For purposes of comparison, the figures for 1961–62 had to be recalculated by the same methods as those used for 1965–66.

[**] In view of the disparities in the socio-occupational structure of the population from one country to another or, within the same country, from one period to another, an irreplaceable method of international or time comparison is this calculation of opportunities which relates the population structure to the student enrolment structure. Calculating the conditional probability also provides a means of interpreting probabilities of access from one country or from one historical situation to another since it allows for disparities in the structure of higher education.

Table 12. TRENDS OF EDUCATIONAL OPPORTUNITIES ACCORDING TO SOCIAL ORIGIN AND SEX BETWEEN 1961–62 AND 1965–66

Father's socio-occupational group	Objective opportunities (probability of access)		Conditional probability									
			Science		Arts		Law		Medicine		Pharmacy	
Year	1961-62	1965-66	1961-62	1965-66	1961-62	1965-66	1961-62	1965-66	1961-62	1965-66	1961-62	1965-66
Farm workers												
M	1.2	3.0	44.0	53.3	36.9	26.4	15.5	16.3	3.6	3.3	0	0.5
F	1.0	2.3	26.6	33.7	65.6	55.4	7.8	8.6	0	3.3	0	1.2
Combined	*1.1*	*2.7*	*34.7*	*45.0*	*50.0*	*38.0*	*12.5*	*12.0*	*2.8*	*3.3*	*0*	*0.8*
Farmers												
M	3.8	8.5	44.6	45.0	27.2	24.4	18.8	20.3	7.4	7.9	2.0	2.2
F	3.0	6.7	27.5	31.8	51.8	48.5	12.9	10.9	2.9	3.9	4.9	4.6
Combined	*3.4*	*8.0*	*37.0*	*39.2*	*38.1*	*35.0*	*16.2*	*16.1*	*5.6*	*6.2*	*3.1*	*3.3*
Workers												
M	1.5	3.9	52.5	50.0	27.5	24.8	14.4	17.8	5.0	6.6	0.6	0.6
F	1.2	2.9	29.3	31.0	56.0	54.4	10.4	10.2	2.6	2.7	1.7	1.4
Combined	*1.3*	*3.4*	*42.8*	*41.7*	*39.9*	*37.0*	*12.3*	*14.6*	*3.6*	*4.9*	*1.4*	*0.9*
Office workers												
M	10.0	17.9	46.0	37.7	17.6	21.6	24.6	26.7	10.1	11.8	1.6	1.7
F	7.8	14.3	30.4	22.3	44.0	53.4	16.0	14.3	6.1	5.7	3.5	4.0
Combined	*9.0*	*16.2*	*39.4*	*31.1*	*28.6*	*35.5*	*21.1*	*21.5*	*8.6*	*9.2*	*2.3*	*2.7*
Employers in industry and commerce												
M	14.6	25.0	40.3	37.2	24.9	17.1	20.5	26.6	11.0	15.4	3.3	3.3
F	13.3	21.2	21.8	22.4	55.7	47.4	11.7	15.7	4.8	7.6	6.0	6.7
Combined	*13.9*	*23.2*	*31.8*	*30.5*	*39.1*	*30.6*	*16.4*	*21.6*	*8.1*	*12.0*	*4.6*	*4.8*
of which:												
Businessmen												
M	52.8	74.0	28.5	34.3	25.2	11.6	22.0	32.3	20.0	17.8	3.9	4.0
F	56.9	68.6	13.2	18.4	57.8	42.5	11.2	19.8	10.8	9.8	6.8	9.2
Combined	*54.4*	*71.5*	*21.1*	*26.6*	*41.1*	*26.0*	*17.0*	*26.5*	*15.5*	*14.0*	*5.3*	*6.4*
Middle management												
M	24.7	38.2	38.3	41.2	30.2	21.0	21.0	23.2	8.5	12.6	2.0	1.6
F	25.4	31.4	22.2	25.5	61.9	52.6	9.1	11.3	3.4	6.4	3.4	3.9
Combined	*24.9*	*35.4*	*30.5*	*34.0*	*45.6*	*37.2*	*15.2*	*18.0*	*6.0*	*9.8*	*2.7*	*2.7*
Professions and senior executives												
M	38.7	61.0	40.0	35.7	19.3	13.7	21.8	26.8	14.7	20.1	4.2	3.5
F	36.9	51.2	25.7	22.8	48.6	43.5	11.6	15.0	6.5	11.1	7.6	7.4
Combined	*38.0*	*58.7*	*33.3*	*30.0*	*33.2*	*27.0*	*16.9*	*21.5*	*10.8*	*16.2*	*5.8*	*5.2*

The trend of opportunities between 1962 and 1966 shows an increase for all social groups: the rates for 1966 are all higher than those for 1962 (see Table 12). But it should be noted that this increase in the opportunities of all groups is not in itself a sign of the democratization of higher education if we define democratization in the strict sense as equal opportunity of access to the University for students from the different social groups. (In the extreme, equal opportunity presupposes for all sub-groups a rate of access equal to the age-group's overall enrolment rate). An increase in the total probability of access is no more a proof of democratization than the general increase in enrolment rates which it necessarily reflects. It is only by analysing the trend of the rate structure between the two dates and the differences between these rates that the democratic nature of the trend can be observed.

In 1961–62, the hierarchy of objective opportunities of access was based on the hierarchy of social classes, ranging from farm workers to industrial operatives, office workers and finally to businessmen, with middle and senior executives in between. The same was true in 1965–66. The breakdown into subgroups also shows the same hierarchy: taking sex into account, the same sequence may be observed in 1966 as in 1962 (except in the case of the daughters of middle management and businessmen, who were ahead of sons belonging to the same category in 1962):

Table 13. CLASSIFICATION OF GROUPS ACCORDING TO EDUCATIONAL OPPORTUNITY IN 1961-62 AND 1965-66

		1961-62	1965-66
Farm workers	F	1	1
	M	2	2
Operatives	F	3	3
	M	4	4
Farmers	F	5	5
	M	6	6
Office workers	F	7	7
	M	8	8
Tradesmen-craftsmen	F	9	9
	M	10	10
Middle management	F	11	12
	M	12	11
Senior executives	F	13	13
	M	14	14
Businessmen	F	15	16
	M	16	15

As regards the differences between the opportunities of the various groups, the disparities in 1965–66 were comparable to those in 1961–62. If we consider the extremes only, the range of chances was of course reduced: thus, in 1962 the son of a businessman had 44 times more chance of engaging in higher studies than the son of a farm worker; in 1966, he had 25 times more. But despite the figures this reduction in range can be used only with caution as a sign of democratization. As the economists well know, the multiplication (by two or three) of an initially very small output cannot be compared out of hand with the significance of the multiplication of an already voluminous output.

If, instead of the extreme differences, we considered the differences between social groups, we observe that the differences between working-class children and middle-class children and those between the latter and upper-class students were greater in 1965–66 than in 1961–62. Thus, the gap between middle management and senior executives widened (rising from 14 % to 23 %) as did that between operatives and office workers (12.8 % as against 7.7 %). In addition and above all, we must ask ourselves what is the qualitative significance of the various increases in opportunities: from the strictly numerical point of view, workers' sons' chances of access to higher education more than doubled over this period while those of the sons of senior executives were multiplied by only 1.6; but apart from the fact that doubling a low number does not have the same significance nor the same social effect as doubling a number which is 30 times higher, the practical implications of the calculation of opportunities impart a different significance, beyond a certain critical level, to the rise in the high rates and to the rise in the lowest rates. Thus, by rising from 52.8 % to 74 % from 1961–62 to 1965–66, businessmen's sons' probability of access to higher education was multiplied by only 1.4; however, the rate of 74 % may be considered as putting this category into an area of opportunity which, from the point of view of social experience, is equivalent to almost certain access to higher education (with the additional advantages provided by that experience) or which might even be regarded as a sign of *over-enrolment* from the point of view of the geneticist who is inclined to doubt that almost a whole age-group can derive full benefit from higher education: when we consider that many businessmen's sons attend the preparatory classes and the Grandes Ecoles and are therefore not included in the figures which served as a basis for calculating these rates, we have to assume that probability of access to higher education for a businessman's son is about 80 %. If we also allow for those private establishments which are most used by the privileged classes (fee-charging pseudo-higher schools of journalism, cinema, photography and so on), we must admit that almost all businessmen's sons likely to attend courses do in fact attend well after 18 years of age, i.e. they are not eliminated by the educational system at any stage of their educational career.

In short, the trend of educational opportunities between 1962 and 1966 has, through the general rise in rates of probability of access, confirmed the educational privileges of the upper classes: thus, for three groups (sons and daughters of businessmen and sons of senior executives), the rise in probability of access was up to or over the critical level of 60 %, not counting Grande Ecole students. In 1961–62, a senior executive's son would probably continue his studies after the baccalauréat; in 1965–66, he was almost certain to do so. On the other hand, the rise in the probability of access for working-class adolescents has not definitely removed them from the area where their normal fate is to learn resignation or where, exceptionally, they may become the wonder of the school: the fact that a worker's son has 3.9 instead of 1.5 chances out of 100 of going on to higher education is not enough to change the working-class image of higher studies. In spite of increased probability of access, the rate remains sufficiently low for it still to be considered improbable and unreasonable to envisage higher studies, except in exceptional cases. The differential rise in probabilities of access therefore has a different meaning for each social group and for this reason the narrowing of extreme disparities has merely abstract significance. The general rise in objective opportunities of access to higher education between 1962 and 1966 has not therefore led to the democratization of university recruitment; for the working-classes the probability of access is still low enough to be regarded as nil, while it is becoming sufficiently high in the case of the upper classes to heighten their privileges, having become almost a certainty.

Lastly, it should be noted that the statistical groups which had to be used for calculation purposes are almost all sufficiently heterogeneous to alternate the real disparities: apart from the "farmer" group, which is patently heterogenous, the "farm worker" group includes both ordinary labourers and the managers of large capital-intensive farms. A large number of workers whose children continue their studies probably belong to the category of foremen; similarly, the "professions and senior executives" group includes such different categories as regards income and even cultural capital as teachers and the commercial managers of large firms. A more detailed analysis would no doubt reveal still greater permanent disparities (especially if regional inequalities were taken into account) than those detected by an analysis based on conventional statistical groups.

But unequal opportunities of access to the University express only one aspect of the educational inequalities associated with social factors: even when access has been gained to a Faculty, the table of conditional opportunities shows that male and female students of different origins are not to be found indiscriminately in just any type of study (see Table 12). If social origin or sex played their part as differential selectors for access to Faculties only and if these unequally selected students then had equal chances of entering the various branches — in short, if the distribution of students among the various Faculties corresponded only to the "vocation" and "tastes" of individuals (regarded as being able to act independently of social determinism) — then for 100 students of a particular origin we should find a distribution of conditional opportunities which in each social group purely and simply reflected the breakdown of the total number of students by disciplines, i.e. respectively 31.5 for arts, 32.4 for science, 16.5 for law, 15.6 for medicine and 4.0 for pharmacy in 1961–62, and in the same order 34.4%, 31.4%, 19.9%, 10.7% and 3.5% in 1965–66 (see Table 5). This shows the distance between this random distribution which would result from the "free play of natural faculties" and the real distribution of conditional opportunities. More specifically, there is a systematic deviation which, by and large, orientates students from the poorer social strata to the Arts and Science Faculties and students from the wealthier strata to the Faculties of Law and Medicine. In fact, *this social specialization of the Faculties tended to become even more pronounced* between 1961–62 and 1965–66.

In 1961–62, working-class students mainly took up arts or science, whereas a higher proportion of upper-class students went into law or medicine; 84.7% of the children of farm workers, 75.1% of the children of farmers and 82.7% of workers' children were enrolled in arts or science. On the other hand, this was the case for only 66.5% of the children of senior executives and for 62.2% of the children of businessmen; the lower a student's social origin, the more his access to higher education had to be paid for by a restriction on choice, even to the extent of a more or less compulsory relegation of the least favoured groups (working-class girls) to the study of arts or science. With the exception of middle management, the conditional probability of going in for the study of law, medicine or pharmacy ran parallel with the probability of access to higher education, i.e. the groups less favoured from the point of view of continuing their studies accumulated further disadvantages.* It looked as though the system of university selection imposed a restrictive social definition of the academic career on those working-class students who had not been eliminated.

If we consider the trend of conditional probability rates (see Table 12) we find that the different social groups are ranked in the same order in 1966 as in 1962 from the point of view of the "choice" of arts and science. While the increase in the respective proportion of law students in total enrolments means that for all socio-occupational groups the probability of their undertaking arts and science studies was reduced, this reduction was mainly evident among the upper-class groups. While the probability of enrolling in arts or science in 1966 was 83.1% for farm workers' children, 74.2% for farmers' children and 78.7% for workers' children, it was no more than 57% for senior executives' children and 52.6% for businessmen's children: thus, the gap between workers' children and senior executives' children widened during this period from 15% to 22%. A more detailed analysis shows the variations in the degree of freedom of choice according to social origin: the conditional probability trend for male students indicates a reduction in the probability of enrolment in a Faculty of Arts for all social groups (except the sons of office workers); this reduction may be at least partly attributed to growing awareness of the precariousness of the outlets offered by this type of study. However, it will be observed that the fall was much greater in the upper classes than the working and middle classes: thus, the probability percentage for workers' sons fell from 27.5% to 24.8%, for senior executives' sons from 19.3% to 13.7% and for businessmen's sons from 25.2% to 11.6%. Furthermore, the swing away from arts studies led in the case of working-class students to a rise in the probability of studying science, whereas upper-class students went in more frequently for law or medicine. Thus, for farm workers' sons, the probability of arts enrolment decreased by 10.5% during this period, while the probability of science enrolment rose by 9.3%. For senior executives' sons, on the other hand, probability of arts enrolment fell at the same time as the probability of science enrolment (by 5.6% and 4.3% respectively), while the probability of taking law rose by 5% and for medicine by 5.4%.

Turning to the conditional probability of engaging in the study of law or medicine, we note that the reform of such courses seems to have interested this probability for upper-class adolescents, while for working-class and middle-class students it remained much the same. Thus, the opportunities of the children of farm workers, farmers, operatives, office workers and middle management were not much greater in 1966 than in

---

* The special position of the "middle management" group may be partly explained by the relatively high proportion of elementary school teachers' children it contains. Professional heredity would appear to encourage such children to go into those Faculties which provide training for a teaching career.

1962: the highest increase was 2.8% for the middle management group, while the probability of farmers' children studying law fell very slightly. But the chances of going into law were distinctly greater in 1966 for the children of senior executives (+4.6%) and especially for the children of businessmen (+9.5%); the increase was still more appreciable for businessmen's sons — from 22% to 32.3%. Thus, insofar as it had any effect, the reform of law studies has tended to accentuate the bourgeois nature of recruitment for this discipline. The same applies to medical studies: probability of access is stationary or slightly higher for working-class children, but 5.6% higher for the children of senior executives. This shows that the relegation of working-class students was as marked in 1966 as in 1962.

From consideration of the statistics used here only one conclusion can reasonably be drawn concerning the visible or probable effects of limited reforms: if we deduce from the trend of social recruitment for the Faculties of Arts and Science that the move towards democratization of higher education in France between 1960 and 1966 was most uncertain and most indecisive, we are bound to conclude, on comparing this spontaneous trend with the almost identical trend in the reformed Faculties of Law and Medicine, that the educational mechanisms which influenced the reforms are almost completely independent of the social and cultural mechanisms governing the relations between the educational system and the social classes.

The only observable effects of the rationalization of curricula and courses in law and medicine may even be to make one more sceptical of the widely held view that the formal rationalization of studies should facilitate the democratization of recruitment. Although it is true that the reform of the Faculties of Law and Medicine brought these studies "up to date", as it were, (both in terms of developments in knowledge and of professional outlets) and thereby raised their social profitability, it would appear that only the privileged strata of society, which already provided a large proportion of their students, were prompted to take advantage of the improvement and modernization of courses,* since they increased their relative share in these disciplines still further and abandoned the Faculties of Arts more definitely than in the past to girls and boys of modest origins, as well as, more generally, the whole group of Arts and Science Faculties, where there is an ever-rising proportion of students who have to pay the price for their access to higher education by accepting a restriction of their choice.

3. THE INEQUALITY OF ACCESS TO HIGHER EDUCATION IN RELATION TO SEX

The number of women students in higher education is often taken as an indication of a system's efficiency and, more generally, of the trend of the traditional pattern of the division of labour between the sexes. However, for our present purposes, we can fairly rapidly pass over the educational inequalities between men and women students, which appear to have been more or less stationary during the period concerned and do not therefore reveal any special sensitivity to the reforms introduced into certain Faculties.* While a whole series of economic and cultural changes in European society has tended since the beginning of the 20th century to make higher education an increasingly frequent stage in young women's development, the proportion of women in the Faculties, which has progressed more in France than in other European countries, seems to have become stabilized at roughly 42% over the last few years, i.e. below the threshold of numerically equal opportunity. Between 1906 and 1962, the proportion of women students in the university population as a whole rose in regular stages (apart from the peaks due to the two wars) from 6% to 41.6%. But it should be noted that this proportion increased by only 0.7% between 1962 and 1966, whereas it had risen by 4.7% between 1956 and 1961:

---

* There are other examples of over-utilization by the already more privileged of measures explicitly designed to reduce the exercise of privilege: for example, it has been noted and verified that the benefits of the social security system are over-utilized (in spite of being designed as an instrument for the redistribution of national income) by the social groups in easiest circumstances who are precisely those able to understand and take advantage of the provisions of a complicated set of regulations.

Table 14. WOMEN RECEIVING HIGHER EDUCATION IN FRANCE SINCE 1955

Law and Medicine reform

Year	Total number of students	Women	Per cent of women
1955-56	152,246	55,390	36.4
1960-61	203,375	83,568	41.1
1961-62	232,610	96,814	41.6
1962-63	270,788	113,499	41.9
1963-64	308,189	129,847	42.1
1964-65	348,935	148,709	42.6
1965-66	393,659	167,810	42.6

Source: Data prepared by the European Sociology Centre from information supplied by the INSEE and the BUS. *Informations statistiques,* Nos. 53-54, 69, 76 and 89; Central Department of Statistics and Economics of the Ministry of Education.

As the effects of the reform of the Faculties of Law and Medicine could only be felt as from 1961–62, we can assume that this reform was not responsible for any specific trend towards equal opportunity for the sexes. There was no appreciably different development in the distribution of men and women students in these disciplines as compared with the unreformed Faculties of Arts and Science.

---

* In the end it proved impossible to make a study here of regional inequalities in higher education: apart from the fact that such a study is more pertinent at primary and secondary level than at higher level, it raised problems of method and documentation which would have led us into specific research. Moreover, any assessment of the effect of the reforms on the trend of regional inequalities would have been subject to caution as the changes in the university map due to the creation of new Faculties and Universities were independent of the institutional reform effort, with which they were largely unconnected.

Table 15. PERCENTAGE OF WOMEN STUDENTS IN THE VARIOUS DISCIPLINES

	Before reform		Reform applied		Pharmacy	All disciplines
	Science	Arts	Law	Medicine		
1961-62	32.1	63.3	29.3	25.6	59.8	41.6
1962-63	31.6	66.2	28.5	27.0	59.7	42.5
1963-64	30.7	63.7	29.4	26.8	60.0	42.1
1964-65	31.1	64.4	28.8	26.5	59.9	42.8
1965-66	31.0	65.0	28.5	28.1	60.2	42.9

Source: ***Informations statistiques,*** **Nos. 53-54, 69, 76, 86; Central Department of Statistics and Economics of the Ministry of Education.**

In fact, as may be seen from the proportion of women students in the various disciplines, the overall rate for women in French higher education covers a very disparate picture: the abstract illusion of almost equal opportunity is given by the juxtaposition of disciplines where women account for only one-third of enrolments with disciplines where they account for over 60% (arts and pharmacy). It looks in fact as though the price of access to higher education for women is a particularly severe restriction on their choice, and the rates which reflect this sort of *division of studies between the sexes* are unchanged for the period concerned.

If the influence of the reform on sex distribution among the different types of studies has not tended towards equality of opportunity (the proportion of women students in the Faculties of Law is falling and fluctuates around 27% in medicine), this is perhaps because the modernization and adaptation of a discipline to professional or research requirements does not have the same significance for girls as for boys, at least in the present state of the division of labour between the sexes. If the downward trend in the proportion of women students in the Faculties of Law were confirmed, we should even have to conclude that a large number (unequally divided as to social origin) of women in higher education who (as we know from the employment statistics) follow courses "in case it may prove useful" and sometimes for the sake of "filling in time", have no professional plans and consequently tend to be all the more attracted to a discipline corresponding to the criteria "without obligation or sanction" (e.g. Arts) and, on the contrary, to keep away from those studies which are most strictly oriented towards professional outlets.

It is not possible to separate the phenomena of educational relegation and elimination on grounds of sex from the more general effects of social stratification. Because sex inequality in higher education is related to cultural patterns and economic requirements which vary from one social class to another, it cannot be analysed independently of the inequality of educational opportunity due to social origin (see Table 12). In 1965–66 as in 1961–62, it was working-class girls who were at the greatest disadvantage: sex inequality is more pronounced at the bottom of the social ladder and tends to diminish among managerial staff and businessmen. Furthermore, although as a general rule girls are more often condemned than boys to the Faculties of Arts and Science, which lead mainly to the teaching profession, and more often than boys to arts courses conforming more closely to the requirements of the traditional patterns of the division of labour and "aptitudes" between the sexes, it is mainly in the case of working-class girls that this relegation was and continues to be experienced. Thus, in 1966, the probability of studying science or arts was 89.1% for farm workers' daughters (92.2 in 1962) and 85.4% (85.3 in 1962) for industrial workers' daughters. But for the daughters of senior executives the probability of such relegation was only 66.3% and for businessmen's daughers 60.9%. More specifically, we have seen that the reform of the Law Faculties had the effect of slightly increasing the proportion of men students in this discipline; but it must be added that the greatest sex disparities were mainly experienced among working-class students: thus, in 1966, the probability of workers' daughters studying law was a little less than in 1962, while for boys it was slightly higher; at the other end of the social scale, the probability that the daughters of senior executives and businessmen would take up law studies increased in the same proportion as for their brothers.

The social origin factor is therefore still present in the various types of inequality between adolescents in higher education: as expectations or cultural values differ mainly from one social class to another, the trend of most of the inequalities of opportunity depends in the last analysis on the democratization of education as seen from the point of view of students' social origins.* The reforms have not helped to reduce secondary disparities, such as disparities between the sexes, partly because these are the result of deeply entrenched patterns of behaviour which permit girls to have access to the highest levels of education only if they conform to traditional standards and "choose" the most "feminine" or the "least serious" disciplines. But it is also because the reforms have in no way reduced social disparities that they have failed to modify the secondary disparities which are sociologically associated with them.

4. CONCLUSION:
DEMOCRATIZATION AND "OPENING UP" OF THE UNIVERSITY

Only blind confidence in the universally beneficial effects of the technical rationalization of studies can lead one to expect the simple "updating" of curricula and courses to transform social processes and equilibria such as those which fashion recruitment for higher education and bring into play the relationships of the educational system as a whole with social mobility, i.e. in the last analysis, with the pattern of class relationships. The social functions of the University are not merged with its technical functions and an improvement in the technical operation of the "university machinery" may very well be reconciled with the perpetuation of the University's social functions, especially the function of preserving class distinctions. The testing of knowledge, the introduction of *avant-garde* techniques, the rationalization of examinations and even the use of standardized tests have an ambiguous social function in an educational system because, by authorizing the autonomization of an enterprise *of educational rationalization per se* and thus obscuring the question of the differential significance of this rationality in relation to the social context, they can in most cases procure for the social functions of the educational system which they serve the scientific guarantee of their formal rationality. The best service that a rationalized education (both in its relations with research or the professions and in its scientific content or its methods of transmission) could render the social *status quo* would, in fact, be to persuade everyone that the problem of the democratization of education no longer existed and that, should the sociologist nevertheless happen to examine the statistics of educational opportunity in relation to social origin, his findings would reflect only the distribution of genetic aptitudes, unfortunately unequal according to sex, race or social group — the authenticity of this social truth being borne out by the testing methods or teaching machines.

---

* A statistical and sociological analysis of the co-linearity between a number of educational variables (including regional inequalities) will be found in A. Darbel's "Inégalités régionales et inégalités sociales" (Regional Inequalities and Social Inequalities) *Revue française de sociologie*, Special issue: *Sociologie de l'éducation*, 1967–68.

But what about the possibility, — at first sight the opposite possibility — of taking direct *ad hoc* measures to influence the recruitment of students? Would the problem of the democratization of higher education be more effectively solved by the express intention of legally and economically facilitating entrance to the University for students who would normally be excluded from the benefits of higher education because of their social origin, their educational record or their professional situation. We should like to suggest that no more can be gained *from making "social" preoccupations independent of pedagogical thinking than from making pedagogical thinking independent of its social context.* It is perhaps not easy to prove the first part of this proposition in the case of France, where the "social measures" taken under political plans to democratize education have so far been most modest and most fragmentary (Table 16). The notorious ineffectiveness of the "bridges" which, in the organisational charts, connect the least favoured educational streams to the main channels, together with the limited effects of the scholarship system and, more recently, the numerically negligible significance* of the measures taken on behalf of wage-earning students, may still be attributed by optimists to teething troubles or to necessarily modest beginnings. But even a cursory analysis of the effect on the University of the "social measures" associated with the reform of the French Faculties shows how they have been reinterpreted through being inserted into the logical context of a university system which, in spite of the technical changes it has had to assimilate, has retained the means of remaining faithful to the social definition of its traditional function. Any attempt to "open up higher education" which made this into a specific issue amenable to specific remedies (such as scholarships or provisions for wage-earning students) would, just like the opposite path of educational autonomization, be doomed to ineffectiveness or, worse still, to legitimation of the *status quo*.

---

* The case of the Socialist countries, which for both political and ideological reasons have endeavoured to implement a "voluntary" policy of democratization of educational recruitment, provides a particularly pertinent counterproof here: in this experimental situation where the specific efficacy of cultural heredity is isolated, we can see both the progress made from a particularly non-egalitarian starting-point by a policy whose explicit aim is to democratize education, as well as the limits encountered by such a project when no sociological analysis of the pedagogical effects of educational stratification has been made in order to give it all the means of reducing that stratification technically. For instance, in Yugoslavia, the effort to abolish most of the restrictions on the right of entrance to the Faculties has led to a twofold educational and economic contradiction, i.e. to a very high rate of drop-outs and failures and also to disequilibrium between the economy's middle management requirements and the types of graduates produced by the University. This analysis will be found in "Educational Structures and Social Groups in Yugoslavia", M. Martic and R. Supek, *Education, développement et démocratie, op. cit.*, pp. 89–94. The trend of the democratization of higher education in other Socialist countries is described on pp. 61 and 62 of the same work.

"*Social measures*"

We are not concerned here with the effects of the scholarship system on higher education since it is of much earlier date than the reforms and its limited influence, at least at Faculty level, on the democratization of recruitment is proved by its very age. To extend the scholarship system or even to introduce a prewage system would not be a decisive method of democratization: apart from the fact that by the time they reach Faculty level working-class children have already been going through a process of elimination throughout their earlier school career, economic inequality due to the cost of studies is not the only means of rendering educational opportunities unequal. It is even possible that the essentially economic factors of unequal educational opportunity will gradually lose their importance in technically advanced societies, while social and cultural differentiation will play a decisive role in inequality of educational opportunity, and hence in transmitting social inequality from one generation to the next. If is rather more interesting to consider a measure which, like the introduction of special status for wage-earning students, seems to derive from the express intention to diversify the social composition of the Faculties.

A feature of university traditionalism may be found in the system's tendency to require students to attend "full time" and put themselves entirely and disinterestedly at their teacher's disposal. Not, as we know, that the teacher is inclined to require "full-time" exercise of the role of student: the traditional schoolmaster can totally fulfil himself only in teaching "without obligation or sanction" where the silent presence of his disciple is sufficient to preserve the magic image of a relationship of initiation in the eyes of both; exercises, checking, testing diligence or practical work are at most the business of an assistant. In terms of a literary education which aims to be an end in itself, the student worthy of the master's teaching is one who has nothing else to do but study and — in the extreme — may even be excused for not studying providing he fulfils this condition. The teacher's indignation against the "ghost student" or the "phony" student should not delude anyone: the absent student, who guarantees by his absence the value which the students present confer on their presence, in fact occupies a choice position in the traditional ideology of the teacher. Whether present or absent, the recognized student exists only by reference to the University from which he is supposed to derive his whole being. It is deeply repugnant to the traditional teacher that students might be defined by reference to another aim than that of becoming disciples or, what amounts to the same thing, that there are several sorts of student who might be constrained as a result of their inclusion in other social contexts, to make different demands and require courses based on other criteria than those of the university culture.

The French University, especially the Faculties of Arts, provides a perfect illustration of the tendency towards autonomization of educational values. The apparent exceptions confirm this rule: we know how teachers like to show moral zeal when the special situation of a particular student has to be taken into account at examinations, for example. This is one aspect of legal traditionalism which is often described as such: Weber called it "cadi's justice". The teacher thinks he is a "judge of equity" and not a "judge of justice", i.e. a mere official: he wants to remain sole judge of exemptions from the university rules. We merely have to think of the "understanding" and casuistic refinements of which the most traditional teachers are capable when "solemnly and sincerely" deliberating the "case" of a trainee teacher's sick leave or another's rights as a ward of the nation or a third one's difficulties as an usher.* These are then "social cases" which can be weighed for their special features and which, because of the exemptions granted, confirm the universal validity of the requirements of the university system: by allowing exceptions to its requirements, the traditional University shows that it does not wish to take account of requirements of which it is not the instigator.

Thus, up to now, French higher education has never been open except through the form of exemptions for students who did not answer to the traditional definition of "free student". Before reform, the University had practically no institutions of social promotion. The continuation or resumption of studies was a difficult enterprise for anyone who was already in employment, since there was no other institution, apart from the Centre National de Télé-enseignement (National Centre for TV Education) to take the place of "normal" education for those who were prevented from being "regular" students by the imperatives of their occupation or by geographical constraints. Moreover, the Centre National de Télé-enseignement did not prepare for degree certificates, i.e. for higher education proper, but only for the "national" examinations such as the agrégation, the CAPES and so on.** It is quite remarkable that owing to the above limitation, this arrangement concerns only marginal cases who "show promise" of mending their ways by one day becoming perfect products of the university system, in other words, teachers.

This context must be remembered in order to appreciate the scope of the measures taken on behalf of students in gainful employment. If the university system was able so easily to transpose into terms of the traditional logic just described and in some way to neutralize measures which might have constrained it to change the definition of its task, this was doubtless due to the vigour of the institutional and cultural elements in French university tradition, and also to the limited and almost token nature of the measures through which the reformer planned to provoke change.

---

* The attitude described here is characteristic of the university role in its traditional form and is obviously not specifically French, even though the French case lends itself particularly well to this description; an American sociologist describes the "professoral humanism" of the American teacher in terms which will not seem unfamiliar to any French teacher: "When they think of individual students and not of students in general, teachers show sympathy which, admirable though it may be in itself, undeniably has the effect of lowering standards: Mr. A. works hard and has made a great deal of progress, so he can be given the benefit of the doubt; although Miss B. is very weak, she is a social case; Mr. C. has a wife and children; Miss D. is on the verge of a nervous breakdown — and so on". (N. Foerster, *The American State University*, University of North Carolina Press, 1937).

** In 1967-68, the Centre National de Télé-enseignement had 9,740 students, including those studying for the Primary Inspectorate Certificate, the CAPCEG, the entrance examination for the Lycée La Fontaine and the music-teaching CAE.

While it is, by nature, foreign to the university mentality, the possibility of varying the social composition of the Faculties does not seem to have been firmly adopted among the reasons given for reform; in any event, this possibility has not given rise to any institutional change of sufficient importance to create an incentive or pass beyond a point of no return. Excluding the Socialist countries, which have introduced a whole series of institutions designed to diversify courses, a number of capitalist nations provide examples of university organisation where studies can assume different forms: however, these foreign examples do not appear to have spurred the Universities to reflection nor reformers to any bold action.* It is characteristic that the only measure in the reform which had the explicit purpose of defining "non-regular" attendance – i.e. the status of students in gainful employment – is presented as a separate element and not as part of an overall policy. This provision *is in fact a by-product of the reorganisation of studies:* as soon as the reorganisation of higher education established in the Faculties of Arts and Science a first cycle based on a yearly curriculum which involved compulsory attendance and a limitation on the number of non-eliminatory failures, it became necessary, and was to some extent a logical consequence of the derogation on behalf of "interesting cases", to do something for students who were obliged to work while studying.**

It is by no means surprising that the university system has reinterpreted such an isolated measure in terms of the self-protecting logic of the "social case" which is tolerable only as long as it does not set a bad example to "real students". One should see how the Faculty meetings called to discuss the rules of procedure to define ways and means of applying this provision take punctilious care in enumerating the documents required as proof of the wage-earner's situation (the "liberals" opting for the pay-slip alone and the "rigorists" for a certificate of employment stating the number of weekly hours of work): the traditional teacher sees frauds, "profiteers" or "smart alecs" everywhere. On the other hand, the scrupulousness, detail and sense of formal justice shown at Faculty meetings when preparing implementing regulations show clearly enough that the University staff do not grudge their time when provisions have to be made for *derogations from the rules.* No-one has more taste for casuistry than the orthodox: nothing has been overlooked in the complicated list of registrations required in the event of a switch from the status of wage-earning student to that of non-wage-earning student and vice versa, in order to make sure that in every case two half "non-regular" students are really in the end equivalent to one regular student.

---

* Although foreign examples play an important role in France in the controversy about the University, they are much more often referred to in order to promote those forms of university organisation which are supposed to be more conducive to research and to liaison with industry (American example) or to prompt pedagogical solutions that are designed to cultivate scientific eminence (Soviet example of the "élite classes") than with a view to analysing systems whose more varied student composition and less rigid attendance requirements might inspire more decisive innovations in the French system.

** Wage-earning students who provide proof of their professional situation can invoke the benefits of a special statute which makes it possible (and compulsory) to sit their examination only after a course lasting twice as long as for other students.

In point of fact, after being applied for two years in the Faculties of Arts and Science, the effect of these measures has been very small and so to speak symbolical: the number of students taking advantage of them did not change from 1966 to 1967 and their modest proportions illustrate the lack of enthusiasm for these provisions among those who could benefit from a genuine redefinition of higher education. Something more than the halving of curricula or examinations, corresponding to the doubling of the period of study, is needed in order to change the image of the University and encourage those who hesitate to become students or to resume their studies to take the necessarily fateful step of replanning their professional career.

Table 16. NUMBER AND PROPORTION OF STUDENTS CLAIMING WAGE-EARNING STUDENT STATUS IN 1966 AND 1967[1]

		Total number of 1st-year enrolments	Number of wage-earning students	%
Faculties of Arts (No. = 13)	1966-67	21,434	1,311	6.02
	1967-68	22,040	1,020	4.60
Faculties of Science (No. = 12)	1966-67	14,062	814	4.70
	1967-68	13,367	812	6.00

[1] In the absence of centralized statistics for the last two years, we obtained these figures from the secretariats of the Faculties of Arts and Science and should like to convey our sincere thanks to the Deans for the information they supplied. These figures are valid for the Faculties for which we were able to assemble complete information, i.e. for a sample of 13 Faculties of Arts and 12 Faculties of Science (which is sufficient considering that this rate hardly varies from one University to another).

The same remarks are called for concerning the effects of a derogation such as the pre-reform arrangement permitting students not holding the baccalauréat to secure admission to a Faculty by taking a special Faculty entrance examination.

Far from being accidental, the smallness of these figures is a measure of the limited extent of the innovation. If it is assumed that in a university institution with more diversified tasks, the education reserved for adolescents whose time is their own and who are physically present at classes is no more than the central core of an educational complex providing through its concentric institutions training for persons moving further and further away from the ideal situation of "regular" student, we can see what a

Table 17. NUMBER AND PROPORTION OF STUDENTS WITHOUT THE BACCALAUREAT ENTERING A FACULTY IN 1966 AND 1967[1]

		Total number of 1st-year enrolments	Number of enrolled students not holding the baccalauréat	%
Faculties of Arts	1966-67	21,434	113	0.5
	1967-68	22,040	106	0.4
Faculties of Science	1966-67	14,062	61	0.4
	1967-68	13,367	76	0.5

[1] See note to Table 16.

gulf separates the fragmentary and almost token measures we have just examined from such a redefinition of university tasks.

Teaching and society

The preceding analysis was intended to draw attention to the conjunction or at least the possible co-existence of university conservatism, insofar as it expresses the logic of a traditional institution, and the politicians' and administrators' desire for technical innovation and rationalization. Although one is accustomed to oppose, term by term, traditional values and rational values and to give substance to this opposition of values, at least in controversy where each side tends to be defined by its opposition to the other, it is worth noting that the university system offers the occasion for a *perfectly stable compromise between technical modernization and social conservation* owing to the relative independence of its technical functions from its social functions. As demonstrated by the bargaining between the Ministry and the university pressure groups about the reform of arts courses, it is by no means impossible for the University to change without being renovated. By allowing a small measure of modernization below the critical level at which the traditional operation of the system would begin to be thrown out of gear, it merely protects all the more effectively the strongholds of conservatism which strategically govern the direction of the educational system and confer on it its power of re-interpretation.

As we have seen, the reforms in the Faculties of Law and Medicine which redefined the content and organisation of these courses by reference to external requirements (research, evolution of learning or labour market) did not fundamentally change the social definition of these studies as reflected, for example, in the social recruitment of students, which is its most objective indicator. The reform of arts and science studies, being mainly intended to remedy the disorganisation of branches of higher education overwhelmed by the weight of numbers, was principally concerned with the organisation of those sectors, disciplines and levels (first cycle) which mattered most to administrators who wished to rationalize university entrance and mattered least to university tradition since the institutions holding the key to its self-perpetuation, recruitment and careers remained unimpaired. Thus, only the lowest levels in the higher educational system have been subjected to any extensive reform, while the Grandes Ecoles, the preparatory classes, the agrégation and the State doctorate remained intact. *It therefore looks as though the traditional university system had made a minimum concession to economic and planning requirements in return for the right to preserve its social characteristics intact.* Insofar as fragmentary improvements and modernization give a better appearance to a system publicly disgraced by its patent disorganisation, it could even be said that reforms as ambiguous as those in arts and science have really the specific function of providing better protection for what is left of pedagogical traditionalism and social conservatism in the operation of the University.*

It obviously remains to define the content of a reform which, although explicitly aiming to democratize education and more especially learning and culture, was faced with the task of studying its pedagogical choices in the light of their social significance, and at the same time reinterpreting the democratic requirement into the specific terms which it must adopt in order to become effectively integrated into the educational system conceived as a special instrument for the *redistribution of learning*. It is certain in any event that this problem cannot be limited to the sole case of higher education: whether it is a matter of democratizing the University or rationalizing school learning, solutions likely to transform the educational career and the process of training can be found only on the scale of the educational system as a whole – from the nursery school to the Faculties. This raises the problem of the relationship between educational research and the reform projects. The Amiens Seminar (March 1968) on educational research and its dissemination and adoption by primary and secondary school teachers was concerned precisely with this preoccupation. But an examination of the analyses or curricula suggested there leads us once again to regret that educational thinking in France has remained so exclusively based on psychology: in order to promote the democratization of education, it is only by at once placing ourselves at the level of the educational system regarded as a social system and not at the level of the classroom regarded as a closed psycho-sociological universe that we can hope to reach beyond improvement of the transmission of information from teacher to pupil and change the principles that govern the redistribution of knowledge from one generation to the next.

---

* Obviously, this *function* of reform cannot be confused either with the *cause* of reform nor still less with the intentions of the reformers. The reform was not extended to the preparatory classes and the Grandes Ecoles largely because by guaranteeing stability of enrolments, selective entrance also guaranteed the continuation of their efficient operation: there was therefore no need or at least no urgent need to reform them, whereas the increase in enrolments and the teaching problems raised by the social transformation of the Arts and Science intake jeopardized the routine operation of these Faculties.

V

REFORM AND THE ORGANISATION OF HIGHER EDUCATION

1. SOME TRADITIONAL INFLEXIBILITIES

Whether they concern the development of research or of interdisciplinary activities, the pedagogical diversification of higher educational establishments or their administrative rationalization, teacher-student relationships or relations between the University and other sectors of social activity, the salient features of the recent reform of the French Faculties are either the omission and sometimes the deliberate avoidance of problems raised or the extreme modesty of the changes introduced. If, like almost all observers, we agree with the diagnosis formulated practically unanimously at the Caen Seminar that innovations capable of affecting the operation and functions of the French higher educational system have still to be invented and implemented and that Faculty reform has had only a very limited influence on the real mechanisms of change, it might be useful to consider, in relation to a few specific examples, *what devices and what forces are responsible for the reappearance of traditional effects in the very midst of a new structure which sometimes has the express purpose of suppressing them.* In other words, in the case of the French system, on which its past history and relative autonomy it has acquired have conferred great powers of reinterpretation, one preliminary step is particularly indispensable in the study or introduction of changes — namely, to consider some of the distinctive features of *false innovation*.

We shall therefore review a few examples of traditional inflexibilities which are likely to retain their significance and their efficacy despite new terminologies and organisational charts. In the first place (section 1), we have selected a few classical effects of the French type of university traditionalism as regards curricula, the introduction of new disciplines and especially the interdisciplinary approach, examinations, specialization of the various institutions, teacher recruitment and status, the teacher-student relationship and the relations between teaching and research. We shall then consider (section 2) how and why these effects usually remain outside the scope of measures designed to eliminate them and why they may sometimes even be strengthened in and by the process of change the system having found in the new organisational layout a better means of self-expression or dissimulation. The problem to which these analyses lead is therefore the determination of the *point of no return* in the case of a university reform and of the critical level and the strategic breaking points with the past in the case of an educational system (section 3).

Curricula and current trends in science

In its ideal form, the training of research workers with innovating and inventive abilities would no doubt require the complete *permeability* of university curricula to current trends in science: ideally, it should be possible to introduce every discovery or, in the case of arts, every new approach, into the curriculum without delay. In fact, insofar as the university has a function of cultural conservation and consecration, "canonization proceedings" take some time, varying in duration according to the discipline. The period that elapses before an educational innovation wins general academic acceptance may, incidentally, be an effective indicator of the degree of university inertia in the various disciplines. While this timelag is tending to disappear in mathematics and physics, it is more noticeable in biology and medicine; but it is longer in law and longest still in the arts or philosophy disciplines.

It has become a commonplace criticism of the competitive examination system to point to the immutability of agrégation curricula which seek to train the cultural monitors that teachers of the humanities should be through a study of the metrics of Callimachus, or the disseminators of scientific rationality, that philosophy teachers should be, through the assimilation of an epistemology, still contemporary with the 19th century.* It should be added that university traditionalism has other more subtle ways of neutralizing scientific and cultural innovation than blind attachment to the past; by having tradition supported by the *avant-garde* and the *avant-garde* by tradition, the University safely disarms its apparent boldness in encouraging its pioneers to introduce the study of the latest doctrines or publications. There is a sham modernity (quite characteristic, for example, of the traditional phylosophy teacher who "reveals" to his students Camus or cybernetics, Levi-Strauss or Lacan in an eclectic form which is sufficient to neutralize what he is talking about) which owes much more to the effect of fashion than to any technical introduction to science, with the patience and detours that that involves. In spite of appearances, curricula which pretend to keep up with current trends and purely and simply follow the fashion destroy the significance of what they promote through the illusion of immediate contact and the feeling of false recognition associated with approximation, and in this way come very close to the educational technique of neutralization through ritual or eclecticism. The most "up-to-date" curricula may therefore be deceptive and perpetuate the cult of the word and formalism so long as they remain associated with unchanged teaching methods which they legitimize through their show of modernity.

---

* Routine denunciation of the worst academic drudgery is only rarely prompted by the desire to make the University perform fully its democratic function of the *rational dissemination of culture*. When the denunciation of the "humanities" or "college pedantry" derives from the proletarian illusion that any literary culture is marked throughout with the stamp of class appropriation, or when, which is more often the case, such denunciation is due to worldly bourgeois contempt for academic tasks and duties, it reveals the image of culture which their social position engenders in members of the privileged classes, who tend to make academic education coincide as closely as possible with the culture of the ruling classes.

Although the University tends to regard curricula as institutions whose letter decides all, we know what role it gives to the personalization of disciplines in the service of formalism and tradition. Generally speaking, the authority of a discipline and its place in the hierarchy of prestige depend on its age and not on its scientific significance: the "oldest" disciplines always have prerogatives of rank which do not fail to influence the allocation of appropriations. The gerontocracy of disciplines, which is particularly pronounced in the Faculties of Arts, is wholly opposed to the requirements of developing knowledge which would lead on to the institutional emancipation of the newest disciplines. To take one example only, the relations between such disciplines as psychology or sociology and philosophy are still influenced, even in the manner of teaching these two sciences, by the traditional hierarchy which tends to bring the latest offspring of anthropological research before the patriarchal tribunal of philosophy: because the historial relationship is unconsciously assimilated to a parental relationship, sociologists and psychologists being the victims of an effect the significance of which they do not always perceive, are insidiously led in fact to give courses that are implicitly measured by the standards of the philosophy course. The necessity for teachers of the new disciplines to plead their cause and prove their worth before a "family council" perhaps explains the large place reserved by any particular sociology curriculum for the study of precursors or classical "founder fathers" whose authority is recognized by the traditional disciplines: this is the characteristic attitude of a disputed discipline which is unsure of its intellectual legitimacy; moreover, by reducing sociology to the history of sociology, it is demonstrated that the newcomer can bend to the routine ritual of university conventions. It is not surprising in these circumstances that interdisciplinary studies have so far led to eclectic patchwork and not to the full and entire recognition of really new intermediate disciplines. Thus, for example, educational organisation juxtaposes modern linguistics and the classical type of philology without permitting the latter to unify a varied field which, as far as the student is concerned, remains the private tilting-ground of teachers. Similarly, comparative literature has indeed been introduced into the Faculties, but its synthesizing purpose has somehow become "encysted" and thereby denied, insofar as the traditional language and literature courses between which it might have woven new links have succeeded in isolating it in its role of additional special subject, thus destined to be rapidly absorbed into the routine.

Careers and the organisation of the Faculties

It is hardly necessary to refer to the lack of diversity in French higher education which prohibits the local adjustments, developments or experiments that are possible on a university scale but are no longer possible on the scale of a State institution: the French Universities differ from each other only by their degree of conformity to a single model represented by the Paris Faculties.

The absence of a diversified growth policy and the scanty appropriations to which this state of affairs leads are obviously not propitious, especially in the Faculties of Arts, to the creation and development of institutes or departments with a sufficient concentration of research workers and resources to hope to play a competitive part in international research. The *de facto* subordination of the provincial Universities to the University of Paris is just as much responsible as the Napoleonic tradition of administrative uniformity for the persistent tendency of every Faculty to become a fully-fledged Faculty offering the whole range of degrees like the Sorbonne, even if in order to do so it has to shut its eyes to the level of some of its courses or teachers.

It would of course be easy to quote many examples of the cost in terms of education and science of a university organisation based on the partitioning and parallelism of establishments, as well as on types of teacher recruitment and career governed by criteria which are closer to those of a prebendary body than to those of a research community. This is a frequent criticism, but it is generally made only in relation to the moral, necessarily superficial aspect of the problem: because the ideal of competition between skills and of sanction through remuneration and prestige is tending to become a compulsory reference in our present-day societies, the security achieved by the possession of high-level diplomas and the protected status of teachers are now regarded as increasingly unfair privileges by those professions which are assessed according to other criteria. Thus, everyone now denounces the irreversible nature of the status conferred by a university degree and the role of the diploma in protecting mediocrity. But it would be more useful to analyse the real mechanisms which ensure the security of university teachers independently of performance: there is a whole series of attitudes associated with teacher recruitment and the closing of the teaching profession which are at least as important as the legal guarantees. A special analysis should be made of the protective role played by the tacit contracts of mutual protection between university teachers with equivalent diplomas in different disciplines: inside the Faculty, it is as though teachers acknowledged each other's claim to perfection and refrained on principle from judging or even simply taking cognizance of each other's teaching.

The method of recruiting teachers for higher education is highly traditional and is moving further and further away from scientific requirements. The inassailability of the thesis is a good indicator of this exemplary inflexibility: the compulsory rhetoric and the specific rules to be observed, the length and the pretentions to exhaustive treatment have remained unchanged, while the period of preparation increased* at a time when higher education needed more teachers and the demands of scientific work were becoming increasingly estranged from those defining the thesis as the "masterpiece" of a simple craftsman. Even in new disciplines such as psychology or sociology, the thesis has been defined purely and simply by transposing the rules of the traditional arts thesis. If sociological research has been assigned a mode of expression similar to that of the academic commentary, this is no doubt because the fundamental and latent functions of the doctorate have remained the same: the thesis is defined objectively as the foundation and qualification for a teaching career aspiring to the benefits of lifelong protection and not as a contribution to research.

---

* From an average of three years in 1900 to over ten years today for an arts thesis.

Research and teaching

We have seen that the existence of Grandes Ecoles endowed with a technically and professionally contradictory status, but with perfectly clear social functions was one of the causes of the decline of research in the Faculties.* But the situation of the Faculties as compared with the Grandes Ecoles is not the only cause of the decline of Faculty research. The traditional logic of the university institution has so far succeeded in transforming so-called "research" courses into routine preparation for an examination: thus, preparation for the higher education diploma (the old DES) usually led to the production of a dissertation based on the student's own write-up of teachers' directives, in some pretence of thesis maintenance and, above all, in an examination very similar in content to that of a "licence" certificate. Insofar as the "maîtrise" really differs from the old DES, the present reform in arts would even result in more weight being given to the conventional examinations and less to the dissertation.

There is undoubtedly something of a paradox in the development of research in teaching institutions and, still more, in so-called "research" courses since it is assumed that the University, which obviously tends to lapse into routine because it is obliged to disseminate and to ensure continuity in such dissemination, would at the same time manage to foresee and encourage the conditions for scientific creation and innovation. This is rather as though one were to suppose that a Church engaged in spreading a religious message and concerned with conditions for the orthodox publication of that message, had also to guard and promote structures conducive to the appearance of new prophets or heretics.** The problem is nonetheless not insoluble, as is proved by the example of many foreign Universities where research has developed at least as impetuously in higher educational establishments as in special institutes.

Since research seems increasingly to be "the most profitable of investments", the French Universities' deficiency in this field is nowadays denounced almost unanimously. In fact, the desire to promote research has inspired most of the principles of the reform of medical studies. If research and research courses have gradually declined in the French Faculties, it is not for lack of explicit declarations of intention nor even for lack of legal provisions. Some light should be thrown here, too, on the means whereby the real functions and operation of the Faculties have in fact obliged teachers to transform their activities into pseudo-research for educational purposes. Thus, the profitability of the "long road" to the thesis is, with a few exceptions, almost non-existent from a scientific point of view, but its professional profitability is most certain: production of the "masterpiece" as a prerequisite for a university career appears nonsense only to someone who judges by scientific criteria; the enterprise becomes comprehensible when we consider that it is in fact a piece of "homework" which will provide a teacher with lifelong security in his profession. In the same way, many third-cycle seminars have reached an intermediate stage between practical work and the classroom lecture: when a professor goes over a research worker's report *ex cathedra,* there is a danger that the scholastic exercise will usually replace scientific guidance and co-operation. In a whole series of higher educational activities the scientific approach is thus inflected by the values which higher education derives from its practical functions. The most characteristic sign of the values actually moulding the operation of Faculties of Arts, especially in the provinces, might be found in the importance attached to the preparatory courses for the agrégation; although the research carried out by particular teachers has undeniable prestige value for a Faculty, this is a marginal accomplishment associated with a few individuals to whom the task of winning renown is in some sort delegated; but for the "collective Faculty conscience", as for the policy of expansion explicitly pursued by a Faculty Council, the sign of a discipline's ultimate acceptance is usually its inclusion among the agrégation courses. It is for this paradoxical consecration, much more than for the creation of a research department or for the training of research workers, that sacrifices are most readily made, either by working additional hours or accepting additional duties. In more general terms, the existence of a large number of agrégation courses represents, in the eyes of the provincial Faculties, evidence of their accession to the status of "full-grown" Faculties.

---

* See p. 33.

** Sociological analyses demonstrating this fundamental contradiction in any scientific community, i.e. a description of the obstacles to scientific innovation which the very existence of an organised scientific community represents, will be found in B. Barber and W. Hirscheds: ***The Sociology of Science***, New York, Free Press, 1962, and N. Kaplan, "Sociology of Science" in R.E.L. Paris ed. ***Handbook of Modern Sociology***, Chicago, Rand McNally, 1964, pp. 852–881.

Acceptance of the teaching fiction

The "misunderstanding" which separates teachers from students, the impossibility of establishing a real "dialogue" and the absence of "exchanges" — in short, the mutual incomprehension of the pedagogical partners — have become current criticisms of Faculty operation. Of course, the size of enrolments, the absence of material facilities and, in particular, of organised meeting-places for teachers and students,* and the routine layout of university premises usually prohibit the establishment of constant and frequent exchanges. One may nevertheless wonder to what extent this often-denounced separation does not conceal an implicit understanding between teachers and students in and through the pedagogical misunderstanding itself, this particular complicity being precisely the main factor in the resistance of the university system to change. Both teachers and taught are too easily satisfied by their ritual lamentation of the difficulty of dialogue for the suspicion not to arise that behind it there lies some "ruse of the system".

It is sufficient merely that the respective attitudes of teachers and students remain complementary, in spite of the apparent tension, for their ambiguous misunderstanding to help to perpetuate it. Distance provides at least as much protection for the student as for the teacher: the professor finds shelter in his Chair and if he does not address anyone in particular, he cannot attach anyone personally either; in the absence of collective sanctions, diffused responsibility makes for individual irresponsibility. The student remains therefore deeply attached to the traditional relationship and to the place and instruments which define it, the desire for "closer contact" with the teacher being only very rarely associated with the wish to reduce the statutory distance between them. For his part, the teacher delivers a monologue on a subject which he has himself chosen, defined and prepared and is sheltered from the hazards of improvisation, surprise interruptions or intervening objections. Aware of the insecurity which is inseparable from a role imposing a virtuoso performance periodically at fixed times, the teacher naturally wishes to mobilize all the protection he can from language. Of all the methods of maintaining one's distance, language is the most effective and the most subtle. As opposed to distance in space or as guaranteed by regulations, the distance created by words would appear to owe nothing to the institution. The Chair, which is not even attached to a person, can provide only rudimentary protection, whereas language is the act of the person himself and radiates from him. In actual fact, the teacher's words owe most of their effect to the institution since they are a pure product of academic training and can never be dissociated from the educational situation in which they occur. But it is sufficient for them not to appear as a statutory attribute to fulfil their main purpose and divert to the functionary and advantage pertaining to the function.

---

* See p. 61.

The student, for his part, summoned to defend himself with words in a battle where not all words are permitted, has no other resource in most cases than the rhetoric of despair, deteriorating into magic incantations, the mechanical reiteration of ideas he presumes to be dear to the teacher or the caricature of a learned discourse of which only the padding or catchwords survive. Thus, conforming to the logic of the protective ritual, he exercises increased caution or false caution either by being over-relativistic, which is often no more than an equivocal compromise, or by providing false examples and false abstractions to define something "not quite false" thus avoiding by his vagueness the possibility of being right or wrong. The propitiatory ritual demands quotations, which are merely a tribute to the Masters or to Culture, and fine words which are treated like so many magic passwords. Such rhetoric expresses the response to a distressing situation which excludes any possibility of technical mastery.

If exchanges between teachers and students can continue to be confined to lectures and dissertations — even though this verbal intercourse is accompanied by an increasing deterioration of information — if most teachers can regard the fact of lecturing as the whole of their professional activity, this is because they are authorized to do so by the entire logic of the institution. Of all teaching obligations, the function of transmitting learning by word of mouth is the only one which is regarded as an unconditional imperative; it therefore takes precedence over supervisory tasks such as the correction of papers, which is often regarded as the darker side of teaching and left to assistants, together with the task of organising students' work. The terms used to designate the different grades of teachers show that their authority to speak increases as they rise in the hierarchy: the assistant will continue to take "practical work" even if he does nothing but talk; the junior lecturer gives "tuition" and the senior lecturer, whose activity is in no way different, nevertheless "lectures", while only the professor gives "magistral courses". We see to what extent this stratification expresses the hierarchy of intellectual tasks: by opposing the intellectual act performed, freed from any subsidiary manipulations, to the laborious techniques of intellectual work, it at the same time increases the students' propensity to disdain rational techniques since the only institution which could teach them these methods rationally specifically relegates them to the bottom of the hierarchy.

In the absence of institutionalized techniques and instruments for information feedback, the teachers' sensitivity to their students' reception of them can no longer be regulated solely according to the signs of audience participation in the charms and prestige of the spoken word: in these circumstances, demagogy or personal magnetism weaving a spell to alter subjectively perceived phenomena become a permanent temptation because they constitute the only effective control of the situation.

2. THE OLD AND THE NEW: INTRODUCTION OF NOVELTY INTO THE OLD ORDER AND PERSISTENCE OF THE OLD IN THE NEW

The various reforms have been introduced in a context of ever sharper and more widespread criticism. These reforms were, as we have seen, sometimes an answer to a demand and to specific problems (law, medicine) and sometimes to the increase in enrolments (arts, science). But since the idea of reform is inseparable from the mythology of cure, there were many who expected that, as a result of a sort of "contact effect" of the reform, most of the negative aspects analysed above would disappear. The arts and science reforms are of too recent date to permit any final evaluation of their effectiveness. But it is certain, and ever more widely recognized, that in the main they affect only the least determining and most determined aspects of the university institution (curricula and the course of study) and that they therefore run the risk of being assimilated or side-stepped. It is already possible in some fields, and even in those where the reformer hoped explicitly to bring about a radical innovation, to demonstrate that the reform was purely and simply reinterpreted in terms of the traditional system and even that it ultimately had paradoxical or aggravating effects. We have quoted typical examples of assimilation and reinterpretation. Similarly, it is no doubt not an accident that the disciplines most recently introduced are generally avoided by students, who are (quite rightly) sensitive to the latent predominance of the old order over innovations which seem to deny it: for instance, psychology and sociology students suffer the new mathematics course as an imposition, in the same way as the most commonly accepted standard for a good medical student is to neglect the study of physics deliberately.* Although unimportant at first sight, these symptoms have an indicative value: because they apply only to secondary effects, the reforms tend to be reinterpreted as a whole by a system whose economy and organising principles they leave intact.

Teaching relations and research in the Faculties

We have seen that with the exception of medicine the reforms had adjusted the course of study without touching the social mechanisms governing student recruitment and teacher training, and hence their attitudes and values. Teacher recruitment and status therefore remain unchanged, except perhaps for the Faculties of Medicine. The mode of teacher training and recruitment is no doubt the most effective obstacle to the opening of higher education on to other sectors of social life. Since the recruitment of university teachers is still based on the doctorate and the agrégation, it remains practically impossible to have recourse to eminent scientists whose curriculum vitae does not exactly comply with traditional standards.

---

* The attitude of medical students to the various subjects after the introduction of the reforms are described in *Les étudiants en médecine* by J.C. Passeron and M. de Saint-Martin, a mimeographed publication of the European Sociology Centre, Paris, 1965.

We have shown that the misunderstanding between teachers and students resulted in part from differences between Faculty training and the training given by the Grandes Ecoles. But there is every sign that a large proportion of Faculty teachers will continue to be recruited as in the past among graduates of the Grandes Ecoles, in accordance with the criteria and qualifications which define academic brilliance in its most traditional form. No doubt the creation of a greater number of posts for assistants (whose status is still undefined), the introduction of supervised practical work for relatively small groups (so long as the expansion of the teaching profession succeeds in catching up with the increase in student enrolments) and the establishments of assiduity checks could gradually introduce into the first cycle of the Faculties a new type of teaching relationship which would be nearer to that observed in secondary education (and therefore debatable and debated). Nonetheless, the traditional style of teacher recruitment may perpetuate the misunderstandings dividing teachers from students, especially as no steps have been taken by the reformers to improve students' living or working conditions.

When we think of the obstacles which, by reason of its structure and functions any educational institution creates to the development of original research, it seems evident that French Faculty reform is not likely to counteract the devices whereby a university institution engenders and protects its routine. Perhaps the reform of the medical Faculties, which alters the relations between teaching and hospital practice as well as the career structure, might appreciably affect the trend of research. But it is difficult to see how the other reforms, which are limited to reorganising curricula or the course of study in the first and second cycles, could have any effect whatsoever on the development of research. The creation of the "maîtrise" does of course meet the desire to separate teacher training provided by the "licence" from preparation for research. However, we have seen how the maîtrise could be assimilated to the old diploma and how the duality of licence and maîtrise was blurred by the successive adjustments forced through when the new system was applied as a result of joint pressure from university teachers and students. In these circumstances, the traditional *gradus ad Parnassum* (second cycle-agrégation-doctorate) has every chance of remaining the royal road to any "serious" career and the principle of every orientation, at least in the arts disciplines.

In order to measure the deficiencies of these reforms in respect of research, it is merely necessary for example to refer to some of the principles which have been partially implemented in a few foreign Universities and which govern the chances of research development in a university institution:

a) A higher educational system is less likely to succumb to routine and to the conservative inflexibilities of education for a teaching career if it can offer more streams, more courses and more controls explicitly directed towards the training of research workers. We could say that French Faculty reform (especially in arts and science) has been on one level only, since it aimed explicitly at introducing research courses into the Faculties (by creating the maîtrise). It should be added that even at this level – which is hardly more than formal – the reform is most incomplete and will perhaps be most ineffective, since the institutions which played the greatest role in orienting the French Faculties towards routine teaching and teacher training are still intact, especially an institution like the agrégation which guarantees the close liaison between secondary and higher education at the cost of subordinating the spirit of the latter to the requirements of the former.

b) A higher educational system is more conducive to scientific initiative and enterprise if its administrative organisation is more varied and based on decision-making units with greater independence in their contacts with extramural groups and interests. At this level, the reform leaves the Faculty system intact, together with the organisation of careers and the centres of university decision-making.

c) Lastly, there is perhaps a measure of optimism in the belief which triumphed at the Caen Seminar that everything depends on the *administrative organisation*. It is not only to a particular type of organisation that certain foreign Universities owe their attitude to research but to the existence of *patterns of intellectual behaviour* and "university habits" which govern the use made of a given type of organisation. Effective action in this field would probably be concerned with the specific conditions governing the University's power and vocation, beginning with the doctorate thesis, whose traditional form and requirements base the career of a university research worker on criteria that are better suited for training permanent higher education officers than the members of a research community.

Interdisciplinary co-operation: reality and fiction

The reinterpretation of change in terms of the standards of the existing system may give rise to inversion effects which aggravate the previous situation because in the end they provide a better disguise and thereby better protection for the contradictions of the system.

For instance, the reform of arts studies may seem to facilitate the progress of interdisciplinary instruction and in any event explicitly set itself this target. Whereas under the old system combinations of subjects not explicitly provided in the syllabus of teaching degrees were reserved for students who were sufficiently privileged – and generally sufficiently dilettante – to go in for a "licence libre" (with no teaching obligations) without bothering too much about the professional profitability of their studies, the reform of curricula and the composition of the lists of certificates that could make up a maîtrise explicitly provide for and thereby rehabilitate interdisciplinary courses. For example, classics students at Maîtrise level can now choose subjects such as general linguistics, history of Roman Law (certificate awarded by the Faculties of Law) or history of classifical and medieval philosophy. In the first cycle, the reform divides the timetable of first-year sociology students between philosophy (three hours), psychology (two hours), modern languages (two hours), economics (two hours), demography (one hour), mathematics (two hours) and sociology (two hours).

But while the diversification of curricula is a necessary condition for the interdisciplinary approach, it is nonetheless not sufficient in itself for that purpose. We can readily understand the technical difficulty of a truly interdisciplinary dialogue and the high symbolic significance of that concept. This ambiguous state of affairs usually leads (as is shown when the results of most "combinations" or the content of most works with a deliberate interdisciplinary bias are analysed) to the pure and simple *juxtaposition* of research by specialists whose problems converge only in prefaces written in a language which is deliberately vague and programmatic enough to permit such convergence. It is certain that this propensity for "contacts" and "exchanges" that are both manifest and cautious is the product of academic training and that the key to the problem lies in education: but while inter-specialist co-operation begins with co-operation between teachers of adjoining subjects who are capable of harmonizing their teaching in order to train research workers capable of dialogue, nothing is more foreign to this requirement than the logic of the traditional system which prohibits any denunciation of the implicit contract of non-interference regarded as the ideal form of statutory protection of responsibilities. So long as this aspect of the system is not called in question, educational curricula with an interdisciplinary bias will lead even more easily than interdisciplinary seminars to activities whose diversity is but a mask for incoherence. Whether at the level of seminars, textbooks, treatises or curricula, the interdisciplinary approach usually risks being reduced to pure and simple juxtaposition or at best to a fictitious discussion whose specific function is to evade to real danger involved in any attempt to formulate a common set of problems: a real discussion which would modify the theories, methods and meaning of the results in each discipline presupposes that each partner challenges and criticizes his own competence; one of them would in fact have to agree to be the first to confess his ignorance or naïveté in the formulation of his questions, thus taking the risk of "losing face" the moment his opposite number refuses in his turn to infringe the diplomatic rules ordinarily governing relations between scientists and, still more, between university teachers. Several technical solutions have been put forward in order to overcome this difficulty, which is peculiar to scientists, of renouncing *protection by the speciality*. Thus, N. Kaplan proposes planning and introducing training for experts in inter-specialist communication who would be a kind of go-between for the speciality languages and would assume the task of translation which is necessary for any exchange.* But this assumes that an interdisciplinary language could exist before the transformations which affect two disciplines when they engage in real discussion, as though sciences could exchange results independently of the reciprocal transformation of their problems. In fact, the vicious circle can be broken, as is proved by the few successful experiments, only in a social

* N. Kaplan, "Organisation: Will it Choke or Promote the Growth of Science?" in K. Hill, *The Management of Scientists*, Beacon Press, Boston.

context where everyone is obliged by the rules and purpose of the meeting to take the risk of departing from his own language in order to make his request for information or his suggestions comprehensible to his opposite number. In other words, such attitudes can be expected to appear only in real research communities operating on the basis of values that are completely opposed to those of the traditional University.

In these circumstances, the changes made by the reforms usually concern merely curricula. For the mathematics course given in the provincial Faculties to sociology students to be something other than the simple geographical displacement of the elementary mathematics course, the teachers who provide it must have received an appropriate training or must have been trained to give some thought to the relations between the two disciplines. In actual fact, as students complain, since this course has been entrusted to mathematicians who are as prone as arts specialists to seek protection in specialization, its effect on the training of psychologists and sociologists is usually practically nil. Worse still, this "modernization" has been responsible for lowering the mathematics level of students in these disciplines, who derive no profit from the ill-conceived mathematics course and now no longer possess even the rudiments of ordinary statistics that they could have acquired, for what they were worth, under the old system.

Evolution of examinations and testing methods

The concurrence of criticisms regarding the most rhetorical forms of examination seems at first sight to have seriously impaired the monopoly of the dissertation. Thus, multiple-choice papers (épreuves par questions à choix multiples) (QCM) in medicine or specific sets of questions in the scientific disciplines and even in the Faculties of Arts have been substituted for the dissertation or the exposé. But it is interesting to note that students are disconcerted by what might pass for a rationalization of the examination when the course was not changed accordingly. There have been cases where students clamoured to return to the old examination system, which at least had the advantage of familiarity.

One may wonder to what extent the appearance of standardized examinations does not worsen the position of the examinee when there is no methodical and technical preparation for learning the new rules of the game: if testing by means of questions on clearly defined knowledge and know-how is to continue to ensure a selection based on linguistic and cultural class privileges with the same efficiency (but better concealed) teachers would merely have to persist in not organising learning through exercises and not cataloguing the mutual duties and rights of teachers and students. Paradoxically enough, it is through those exercises which are apparently most free from rhetorical demands that the French educational system manages as a supreme refinement to impose the strictest and at the same time the most subtle observance of the formal principles of composition, and at all levels: the "free" composition of the primary schools, just like the stylistic commentary of the higher certificate of philology, is usually only a composition or dissertation in disguise. It is characteristic in this connection that most teachers probably did not notice the substitution of the term "épreuve" (test) for the term "dissertation" in the regulations defining the first-cycle Faculty of Arts examinations — no doubt because this change — which might have authorized fairly substantial alterations in examination criteria — would have obliged them to review their teaching critically, and consequently to reconsider the values in which they recognize the significance of their pedagogical act, their profession and their " vocation ".

Creation of the University Institutes of Technology (IUT)

If it is easy to demonstrate the limited scope of most of the aspects of the reform, this is because the measures of reorganisation have left unimpaired the major institutional equilibria which place the University as the spot where pedagogical practices and customs are determined, this field is characterized, as we have seen, by the relations between the three main types of organisation and training represented by the Faculties, the Grandes Ecoles and the research institutes. Most of the measures which have been presented explicitly as a radical break with French university tradition (take, for example, the possibility recently offered to the Faculties of obtaining the services of foreign teachers with full legal authority) have in fact affected only the institution's superstructure: it is in no way surprising that as a general rule these false innovations have had the effect only of providing new ways of accomplishing traditional practices, or, at best, have remained a dead letter, nor is it even possible — as do too often well-intentioned reformers with their propensity for moral indignation or psychological naïveté — to impute these failures to university perversity or conservatism, which would be sufficient explanation in itself.

From the point of view of institutional innovation, only the decision to create a radically new type of higher educational establishment could perhaps call in question the traditional university equilibria. In fact, the creation of the University Institutes of Technology (IUT) was one of the kingpins of the reform of higher education. By creating a greater variety of university streams the reformer wished to substitute the possibility of " rational " orientation based on " aptitudes ", for the policy of negative selection shown by the trend towards the multiplication of " barriers ". However, in view of the small number of enrolments in the IUT — 5,379 in 1967–68 — and the small number of Institutes created — 22 in 1967–68 — the IUT are at present quite obviously incapable of transforming the structure and operation of an educational system which is still based on the duality Faculties — Grandes Ecoles and which is characterized negative by the absence of any real higher technical educational system. We shall therefore have to confine ourselves here to assumptions concerning the future of the IUT based on the data available and especially on the study of historical precedents.

There can be no doubt that the development of the IUT would meet the demand for higher technicians and junior executives from the " pioneering " sectors or firms which have advantage in delegating to the university institution all or part of the vocational training for which they are responsible as things are at present. From the point of view of the social demand for education, these establishments seem to be tailored to certain middle-class categories which find their principal instrument of social mobility in a strictly utilitarian vocational training. In the absence of real higher technical education, this vocational training is at present provided only by institutions which are in fact defined by their marginal situation in relation to the university system: the Instituts de Promotion Sociale de Travail, the Conservatoire National des Arts et Métiers or " small " private schools.

But here too the reformer's intentions to adjust the university institution by means of the IUT to the economic demand for skill and the social demand for training do not entitle us to anticipate the subsequent development of these establishments. Historical precedents provide many examples of innovations designed explicitly to meet explicit demands and which were nonetheless diverted from their declared purpose by the specific logic of the educational institution. Technical educational establishments therefore tend as a general rule to give up their function of vocational training progressively in order to provide science courses at an ever higher level, and some of them have even managed to acquire university status. It is as though the French educational system found it repugnant to provide technical training which it regards as incompatible with the literary culture promoting disinterested accomplishment and theoretical learning: the engineering schools which were set up in the last century to train the " NCOs industry " gained their patent of nobility only when their pupils began to take up posts which had no direct connection with their training. Nowadays, the technical colleges have become technical lycées and abandoned their original clientèle to the technical education colleges (CET), which are themselves the old apprenticeship centres whose traditional public has been relegated to the newly-created Sections d'Enseignement professionnel (Vocational training sections) (SEP).

It is no doubt too soon to anticipate the future evolution of the IUT, but it is already apparent that *they tend to operate a selection process right from the start*; thus, less than a third of the IUT applicants in 1967–68 were actually accepted; in addition, the average proportion of students holding the baccalauréat is roughly 50%; the proportions are low in the tertiary sector departments (business administrations, marketing techniques, welfare), which seem to act as a " refuge " for those who have been eliminated from secondary education, but higher in the departments training for industrial careers, i.e. in those where the outlets are more certain. We need merely recall here that it was precisely by introducing a severe student selection process that the former technical schools generally triggered off the process of " updrift " and " deprofessionalization " by which they have been characterized hitherto.

Table 18. APPLICATIONS AND ADMISSIONS TO IUT IN 1967–68

	Applicants	Applicants accepted	Actual entrances
Number	15,130	4,938	4,125
Per cent	100	32.6	27.3

Table 19. DIPLOMA LEVEL OF APPLICANTS ACCEPTED FOR IUT IN 1967–68

Department	Baccalauréat	*of which:* Technical baccalauréat	Other diplomas	Total
Tertiary sector ……	41.5	4.0	58.4	100
Secondary sector …	53.6	17.6	46.4	100
Combined ………..	50.6	14.2	49.4	100

3. CONCLUSION: TOWARDS AN APPLIED STRATEGY: STRENGTH AND VULNERABILITY OF THE EDUCATION SYSTEM

The limited scope of the reform and the fact that it is a compromise have now been recognized by widely differing social groups and especially by those most concerned in the operation of the University: administrators, managers, university teachers and research workers. The original feature of the Caen Seminar was to proclaim the need for "structural reform" and to saddle the whole higher educational system with the responsibility for a series of breakdowns: this approach to the problem is undoubtedly different from the claims or criticisms put forward haphazardly by groups of users who ideologically express either purely and simply the logic of the university system or an equally over-simplified protest. This perhaps explains the almost complete unanimity voiced at the Seminar: with such very different persons as P. Mendès-France or C. Fouchet among its participants the Seminar left both teachers' and students' Unions nonplussed and provoked from them, curiously enough, only vague and limited reactions, reserved in both praise and criticism.

But one may wonder whether the *artificial illusions* so frequently associated with any reforming enterprise were completely dispelled at the Caen Seminar: the overt reconciliation of diagnoses around a few key words such as "diversification" or "autonomy" and "opening out" or "administration" cannot fail to call to mind those sham reconciliations fostered by enthusiasm and generalities. Since some participants evoked the "Nuit du 4 août" in connection with the voluntary surrender of university privileges, it is perhaps not out of place to ask whether the lyrical unanimity on the occasion of this meeting is not something of a temporary reconciliation uniting the general public, students, politicians, teachers, research workers and technocrats in an outburst of fleeting enthusiasm. It remains to be seen whether it is sufficient to denounce the inflexibility and inertia of university administration and organisation in order to define exactly those strategic points where reforms should be made and those social or political conditions which make such an undertaking possible.

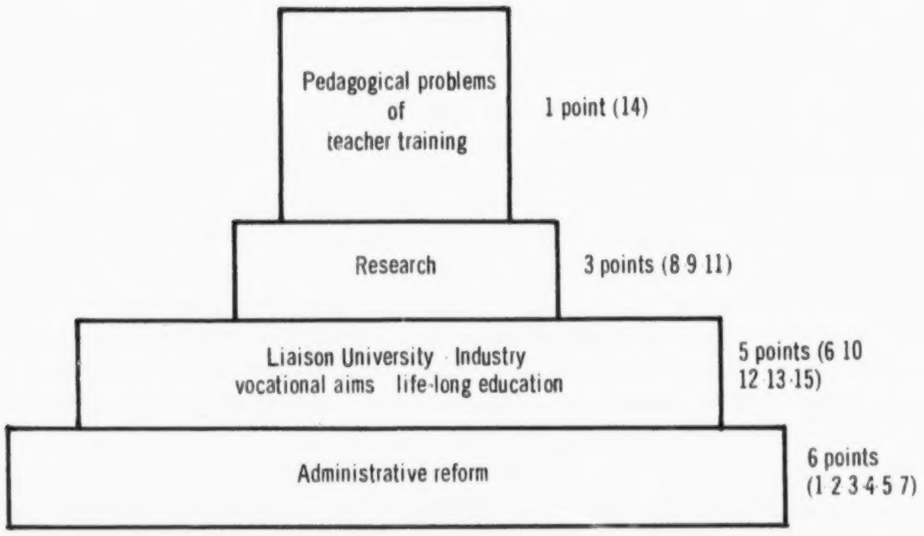
The Caen Seminar: priority given to organisational reform

The papers read at the Caen Seminar and the conclusions reached there show on analysis that most participants shared the belief in the effectiveness of the organisation chart and the new titles. In fact, it is not impossible that the university system may still be able to reinterpret the innovation in terms of its traditional logic so long as the reform is confined to certain of its structures, *especially its administrative structures.* One may, for example, be sceptical about the decisive effect of the proposal to replace Chairs by "Departments", which was one of the central themes and almost symbolical of the Seminar.

More broadly, an analysis of the "fifteen points" of the Caen Seminar shows a very revealing distribution of the problems discussed, if we measure the Seminar's main interests by the volume of analyses devoted to them.

Graph 6

CENTRES OF INTEREST AT THE CAEN SEMINAR


Pedagogical problems of teacher training
1 point (14)
Research
3 points (8 9 11)
Liaison University · Industry
vocational aims · life-long education
5 points (6 10 12 13·15)
Administrative reform
6 points (1·2 3·4·5 7)

Although the participants at the Caen Seminar recognized the need for "restructuring" the University, it is noteworthy that they either left this term in its usual imprecision, thus more easily suggesting the central idea of a "fundamental mutation", or illustrated their remarks by examples clearly showing that they were thinking primarily of its administrative organisational structures (management and decision-making). In this sense, the Caen diagnosis is similar to the diagnosis made by administrators and deans or, more generally, by senior professors in important Universities particularly sensitive to the administrative problems raised by Faculty size and enrolments. The rhetorical effectiveness of formulae such as "necessary structural change" has often made it possible to overlook a sociological commonplace which it is expedient to recall since it seems to have been forgotten so frequently: the University as a specific institution with specific problems and ills is not defined only by its *administrative structures* but also and above all by its *pedagogical structures,* i.e. an organisation of values, patterns and rules governing professional acts which is often implicit or even dissimulated as a behaviour-generating principle but is nonetheless decisive. But the Caen Seminar only approached educational problems from the point of view of teacher training and, even so, the issue was usually reduced to a problem of curriculum reorganisation, any reflection on theory being replaced by the pious hope, often reiterated in programmatic form, for "development of educational research".

It is only by implementing a systematic policy of sociologically justified innovation that there would be some chance of reaching the critical level beyond which it is impossible to reinterpret innovation in terms of traditional logic. Educational innovation cannot be reduced to a simple modification of the course of study or curricula; its prerequisite is the development of educational research which makes itself effective by getting away from the closed world of the classroom and the "pedagogical relationship" in which it is imprisoned by its "psychologist" past. The science of education is too rarely regarded, especially in France, as a social science.*

It is not surprising that the seminars devoted to university reform, including the Amiens Seminar which explicitly concerned teaching, have not got much further than declarations of intention as regards the definition of the *pedagogical reform* of the university institution. But it would be somewhat in bad faith to reproach those who ceaselessly call attention to the importance of a pedagogical transformation of the educational system regarded as a social system with their purely rhetorical exortations to research (*Macte animo, generose puer*), since with the present current of ideas and concepts no coherent pedagogical ideology exists which would be capable of supporting the changes in function and operation that the political situation might on occasion make possible. In the history of French education, the fundamental transformations of the Renaissance or the end of the 18th century were preceded and accompanied by a profound critical analysis of pedagogy. The upheaval in the French educational system under the Revolution owes far more to the capital of ideas and theoretical orientations that had been built up in 18th century criticism than to any thinking about administrative organisation, which was to remain hesitant — as shown by the measures taken by the Convention. Nowadays, we see the opposite phenomenon: while the administrative structure of the University is at the centre of the discussion, the pedagogical controversy has been confined for the last 20 years to a ritual confrontation between methods based on a psychology of "motivations" and "interests", which smacks of traditional maieutics, and a science fiction optimism which expects the ultimate solution to come from cybernetics and teaching machines, should these means ever be used for rationalizing examination methods and forecasting outlets.

---

* Evidence of this is found in the content of the "educational science" curricula introduced into the Faculties by the reform: students of this discipline who wish to take their "maitrise" have a choice in their second year between seven psychology certificates, while educational sociology just manages to creep in through social psychology (C2 first year) and the social economics of education. In these circumstances educational research cannot change the social significance of education and it is not surprising that its achievements are confined to the laboratory and subject to the most traditional reinterpretation as soon as any attempt is made to put them into practice outside the "pilot classes" or the schools attached to teacher training colleges.

"The system effect" and breakthrough levels in the operation of the university system

P. Bourdieu outlined an analysis of the "system effect" as applied to the educational system which should make it impossible to consider the consequences expected from an innovation without at the same time studying the significance of that innovation in relation to the system in which it is to be placed.* Thus, if it is true that the various aspects and levels of the educational system are particularly interdependent and closely related, if it is also true that this interpendence is usually concealed from both agents (students and teachers), and administrators, who are only connected directly with the system's legal organisation, and if the *reinterpretation* of change of which the university system is consequently capable always owes more to the system's logic than to the reformer's intentions, then the theoretical and practical problem to be considered concerns the *nature* and *place* of the key links defining the university system as such, i.e. both its *strength* of resistance to blind innovation and its possible *vulnerability* to scientifically prepared measures of action. Do *critical levels* exist beyond which innovation cannot be reinterpreted in terms of the old standards? Which points of the university system are especially sensitive to action to initiate a changeover from one system of operation to another? These are the questions that educational theorists cannot evade without provoking purely superficial effects whose importance must be peremptorily asserted or repercussions which they have neither foreseen nor intended.

From this point of view, the implicit or explicit analyses current today on the tactics of reform might be classified in terms of their increasing awareness of the problem of an applied strategy.

a) At the foot of the scale we must undoubtedly place the empty phrase: "innovation for innovation's sake". However unsubstantial it may be, this attitude must be mentioned because it accounts for the largest proportion of the literature on reform and the University crisis and because it is expedient to be on one's guard against the poetic illusion to which everyone is still prone. The essentially superstitious belief in a sort of intrinsic efficacy of innovation is in fact very widespread in technically advanced societies which have developed a "tradition of novelty". This incantatory attitude is readily proclaimed in terms reminiscent of cataclysms and great cosmic events: "structural mutation", "radical challenge", "fundamental upheavals" or "foundation failure", to mention only a few gems from this hoard.

b) However stringent its experiments and however eloquent some of its results may sometimes be, educational research based on psychology or psychosociology hardly seems capable of transforming a system whose functions and operational principles are so closely linked with fundamental social and economic equilibria, and in particular with the historical configuration of relations of strength between the social classes. The real fate of the innovations arising out of psychological experiments or individual endeavours is sufficiently convincing proof of their limited scope.

---

* P. Bourdieu, Systèmes et Innovations in *Pour une Ecole Nouvelle*, p. 347, Dunod, Paris, 1969.

c) Lastly, there is an approach to reform which is more alive to the deterministic and systematically interdependent factors characterizing education as a system, but often deludes itself concerning the scope of its plans because it views the mechanisms of the system in their most accessible and most obvious form. Thus, some people expect the providential effects of *morphological or demographic determinism* — i.e. the rise in the number of students and the increased size of the system to produce upheavals which, as surely and anonymously as transformations in nature, would automatically define the new aims of education. The belief in the transforming efficacy of the massive appropriations granted to the University, incidentally very close to this faith in growth, as it also shares the blind confidence in the innovating virtues of *quantity determinism.*

d) Obviously, the analysis of the social mechanisms which support and perpetuate the values of university culture in its traditional form would have to be taken further. If we have suggested in the present study that the decisive links in the educational system depend on procedures of teacher recruitment and training, on the social organisation of scientific life and the exchanges implied thereby, and in particular on the social origin of students, it is because these mechanisms define the educational system as a social system and, more broadly, as a social system functionally related to all other social systems.

ANNEXES

Annex I

STATISTICS OF STUDENT POPULATION TRENDS IN FRANCE

Table A I–1. TREND OF THE NUMBER OF STUDENTS BY UNIVERSITY

Year	Aix-Marseille	Amiens[1]	Besançon	Bordeaux	Caen	Clermont	Dijon	Grenoble	Lille	Limoges[1]	Lyon	Mont-pellier
1900-01	950	–	252	2,119	803	299	669	566	1,209	–	2,458	1,610
1910-11	1,264	–	239	2,620	794	278	1,043	1,272	1,893	–	3,091	2,028
1915-16	482	–	80	948	291	135	240	587	64	–	881	654
1920-21	1,596	–	266	2,640	1,055	467	744	2,737	1,475	–	3,409	2,615
1925-26	1,971	–	458	3,000	1,180	621	1,015	2,931	2,420	–	3,575	2,428
1930-31	2,988	–	571	4,254	1,828	1,077	1,397	3,197	3,748	–	4,965	3,810
1935-36	3,269	–	451	3,932	1,317	1,025	1,047	2,180	3,221	–	4,998	3,126
1940-41	5,550	–	388	3,657	1,832	2,014	864	3,560	2,475	–	6,695	4,900
1945-46	5,496	–	745	6,242	2,624	2,007	1,172	3,954	6,225	–	6,958	5,091
1950-51	7,556	–	933	8,147	3,083	2,108	1,820	4,199	6,382	–	7,865	5,685
1955-56	9,679	–	1,157	9,511	3,826	2,758	2,426	4,685	7,406	–	9,258	7,054
1960-61	15 486	–	2,217	12,267	6,357	4,731	3,706	10,007	11,503	–	13,315	10,509
1961-62	19,020	–	2,889	13,805	7,395	5,556	4,578	10,471	13,101	–	15,351	13,361
1962-63	22,242	–	3,425	15,947	8,454	6,027	5,286	13,010	14,625	–	17,280	15,655
1963-64	26 030	–	3,817	18,891	10,478	6,994	6,230	15,267	16,672	–	20,093	17,611
1964-65	30,136	1,648	4,861	21,526	8,086	8,312	6,857	16,077	17,400	–	23,311	19,572
1965-66	27,397	2,773	5,648	23,307	9,538	9,142	8,179	17,518	20,404	1,871	27,474	20,565
1966-67	28,795	4,012	6,553	26,343	9,893	11,016	9,076	19,759	22,268	2,366	30,156	22,214

Table A I–1. (cont'd)

Year	Nancy	Nantes[1]	Nice[1]	Orléans[1]	Paris	Poitiers	Reims[1]	Rennes	Rouen[1]	Stras-bourg	Toulouse	Total
1900-01	1,027	–	–	–	12,381	1,028	–	1,609	–	–	2,040	29,020
1910-11	1,886	–	–	–	17,326	1,314	–	1,995	–	–	2,864	39,907
1915-16	356	–	–	–	5,522	428	–	651	–	–	825	12,144
1920-21	2,002	–	–	–	21,232	1,238	–	1,946	–	–	2,680	48,517
1925-26	2,554	–	–	–	25,123	1,578	–	1,929	–	2,889	3,171	56,843
1930-31	4,287	–	–	–	31,886	2,107	–	2,850	–	3,255	4,370	76,590
1935-36	3,105	–	–	–	32,577	1,969	–	2,647	–	2,760	4,016	71,250
1940-41	1,158	–	–	–	23,352	2,626	–	4,207	–	2,543	6,894	72,715
1945-46	3,894	–	–	–	53,427	3,118	–	5,032	–	4,520	7,665	118,170
1950-51	4,602	–	–	–	58,958	4,127	–	6,343	–	5,069	7,531	134,408
1955-56	5,231	–	–	–	64,151	4,546	–	7,161	–	5,343	8,054	152,246
1960-61	8,294	–	–	–	77,796	6,843	–	11,092	–	8,479	12,070	214,672
1961-62	8,682	–	–	–	81,617	6,310	–	9,253	–	11,686	14,592	244,814
1962-63	9,830	4,717	–	2,464	93,925	7,441	1,489	9,802	–	13,419	17,184	282,222
1963-64	11,147	5,804	–	3,398	106,733	8,544	2,337	11,656	–	14,127	20,482	326,311
1964-65	12,117	6,936	–	5,410	116,717	9,557	3,038	13,549	4,108	15,628	22,855	367,701
1965-66	14,301	8,199	6,539	6,376	127,883	8,906	3,639	15,445	5,145	17,490	26,016	413,756
1966-67	16,818	9,412	8,129	7,817	136,324	9,589	4,853	17,892	6,095	18,716	28,374	459,470

[1] University created after 1961–62.

Source: Prepared by the European Sociology Centre from information supplied by the INSEE, the BUS and the Central Department of Statistics and Economics of the Ministry of Education — *Information statistiques,* Nos. 69, 76, 86 and 95. From 1960–61, the figures include both French and foreign students enrolled in Faculties and students enrolled in other higher educational establishments.

Table A I–2. TREND OF THE NUMBER OF STUDENTS BY FIELD OF STUDY

Year	Law		Medicine		Pharmacy		Science		Arts		Total	
	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
1900–01	10,152	16	8,627	508	3,347	77	3,910	98	3 723	243	29,759	942
1905–06	14,312	86	6,545	454	1,974	55	5,592	305	4,893	1,088	33,316	1,988
1910–11	17,292	150	9,933	1,148	1,632	54	6,096	453	6,237	2,149	41,190	3,954
1915–16	3,503	130	3,263	765	656	166	2,727	735	2,417	1,412	12,566	3,208
1920–21	17,376	861	11,366	1,417	2,197	511	10,918	1,326	7,892	3,182	49,727	7,297
1925–26	17,415	1,507	12,286	2,158	3,701	1,179	12,596	1,638	12,244	5,750	58,242	12,232
1930–31	20,871	2,576	18,086	3,387	5,486	2,009	15,495	3,110	18,386	9,106	78,324	20,188
1935–36	21,568	3,131	17,699	3,829	5,654	2,490	11,329	2,578	17,221	8,247	73,471	20,275
1940–41	21,541	4,385	13,691	3,230	6,293	3,324	15,158	4,308	19,702	10,650	76,385	25,897
1945–46	40,553	9,318	19,586	4,172	8,051	4,261	21,947	5,853	27,778	15,021	117,915	38,625
1950–51	36,888	9,669	29,083	6,508	6,810	3,713	26,156	6,489	35,156	19,232	134,093	45,611
1955–56	35,486	10,113	29,091	6,660	7,594	4,199	38,290	10,525	41,785	23,877	152,246	55,374
1960–61	33,634	9,792	30,587	7,724	8,697	5,162	68,062	21,928	63,395	38,962	203,375	83,568
1961–62	38,469	11,275	36,203	9,289	9,300	5,564	75,282	24,196	73,376	46,490	232,610	96,814
1962–63	45,511	12,939	37,633	10,194	10,174	6,081	88,175	27,909	85,063	56,364	266,556	113,487
1963–64	53,650	15,814	39,751	10,692	10,806	6,489	100,498	30,887	103,484	65,965	308,189	129,847
1964–65	65,131	18,817	36,940	10,058	12,417	7,448	109,628	34,118	119,017	76,728	343,133	147,151
1965–66	77,114	21,989	41,658	11,720	13,776	8,291	121,539	37,673	133,216	86,575	387,303	166,248
1966–67	88,030	–	47,593	–	15,219	–	124,721	–	152,916	–	428,479	–

Source: Prepared by the European Sociology Centre from information supplied by the INSEE, the BUS and the Central Department of Statistics and Economics of the Ministry of Education. *Informations statistiques* Nos. 76, 86 and 95. The figures include both French and foreign students enrolled in Faculties, apart from non-enrolled students belonging to establishments attached either to the Universities or to Faculties; dental school students are not included. Up to 1940–41 inclusive, enrolments include students at the University of Algiers.

Graph A-1

TREND OF THE NUMBER OF STUDENTS BY FIELD OF STUDY

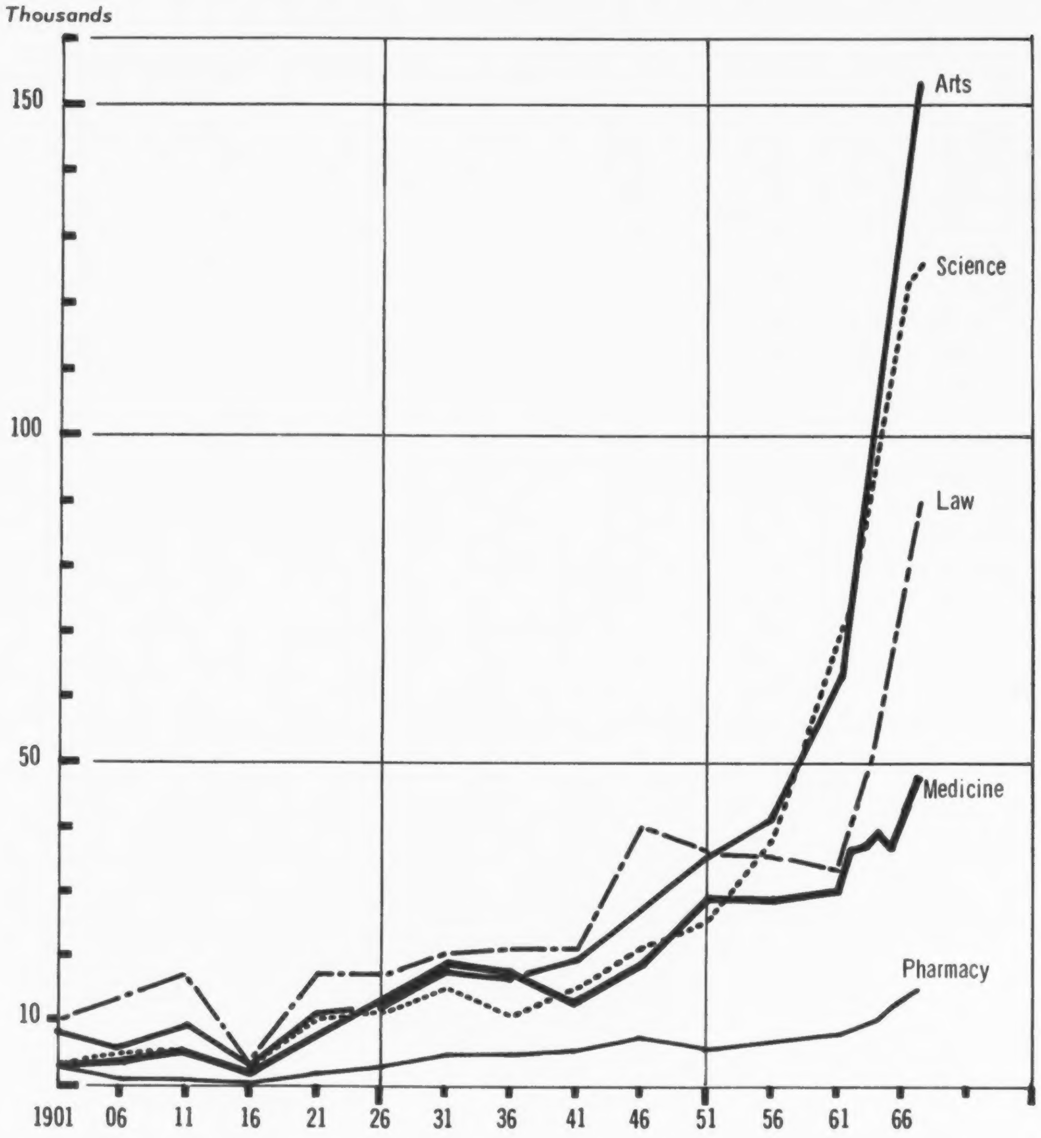


Table AI–3. TREND OF THE DISTRIBUTION OF STUDENTS BY FIELD OF STUDY

(relative value)

Year	Distribution per 100 students					
	Law	Medicine	Pharmacy	Science	Arts	Total
1900–01	33.9	28.9	11.4	13.2	12.6	100
1905–06	42.9	19.6	6.0	16.8	14.7	100
1910–11	41.8	24.1	4.1	14.8	15.2	100
1915–16	27.9	26.0	5.2	21.7	19.2	100
1920–21	34.9	22.8	4.5	21.9	15.9	100
1925–26	29.9	21.1	6.4	21.6	21.0	100
1930–31	26.6	23.1	7.0	19.8	23.5	100
1935–36	29.4	24.1	7.7	15.4	23.4	100
1940–41	28.2	17.9	8.2	19.9	25.8	100
1945–46	34.4	16.6	6.8	18.6	23.6	100
1950–51	27.5	21.7	5.1	19.5	26.2	100
1955–56	23.3	19.2	5.0	25.2	27.5	100
1960–61	16.5	15.0	4.3	33.5	30.7	100
1961–62	16.5	15.6	4.0	32.4	31.5	100
1962–63	17.1	14.1	3.8	33.1	31.9	100
1963–64	17.4	12.8	3.5	32.6	33.5	100
1964–65	18.9	11.0	3.6	31.9	34.7	100
1965–66	19.9	10.7	3.5	31.4	34.4	100
1966–67	20.5	11.1	3.5	29.1	35.7	100

Graph A-2

TREND OF THE DISTRIBUTION OF STUDENTS BY FIELD OF STUDY

(Relative value)

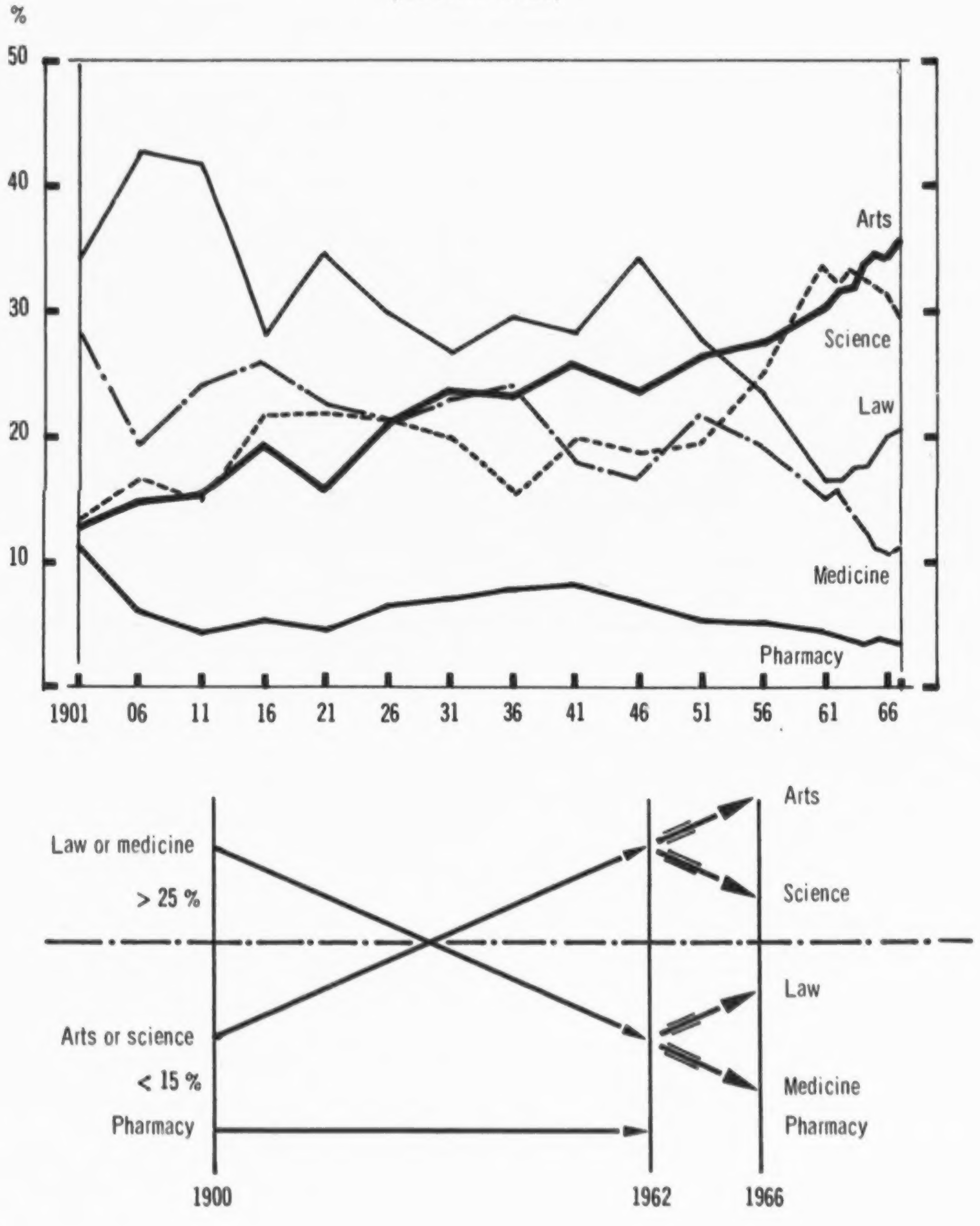


Table A I–4. TREND OF THE PERCENTAGE OF FEMALE STUDENTS BY FIELD OF STUDY

Year	Law	Medicine	Pharmacy	Science	Arts	All fields of study
1900–01 ……	0.1	5.9	2.3	2.5	6.5	3.2
1905–06 ……	0.6	6.9	2.8	5.4	22.2	6.0
1910–11 ……	0.9	11.5	3.3	7.4	34.4	9.6
1915–16 ……	3.7	23.4	25.3	26.9	58.4	25.5
1920–21 ……	4.9	12.5	23.2	12.1	40.3	14.7
1925–26 ……	8.6	17.6	31.8	13.0	47.0	21.0
1930–31 ……	12.3	18.7	36.6	20.0	49.5	25.8
1935–36 ……	14.5	21.6	44.0	22.7	47.9	27.6
1940–41 ……	20.3	23.6	52.8	28.4	54.0	33.9
1945–46 ……	22.3	21.3	53.0	26.7	54.1	32.7
1950–51 ……	26.2	22.4	54.5	24.8	54.7	34.0
1955–56 ……	28.5	22.9	55.3	27.5	57.1	36.4
1960–61 ……	29.1	25.2	59.3	32.2	62.4	41.1
1961–62 ……	29.3	25.6	59.8	32.1	63.3	41.6
1962–63 ……	28.5	27.0	59.7	31.6	66.2	42.5
1963–64 ……	29.4	26.8	60.0	30.7	63.7	42.1
1964–65 ……	28.8	26.5	59.9	31.1	64.4	42.8
1965–66 ……	28.5	28.1	60.2	31.0	65.0	42.9

Graph A-3

TREND OF THE PERCENTAGE OF FEMALE STUDENTS BY FIELD OF STUDY

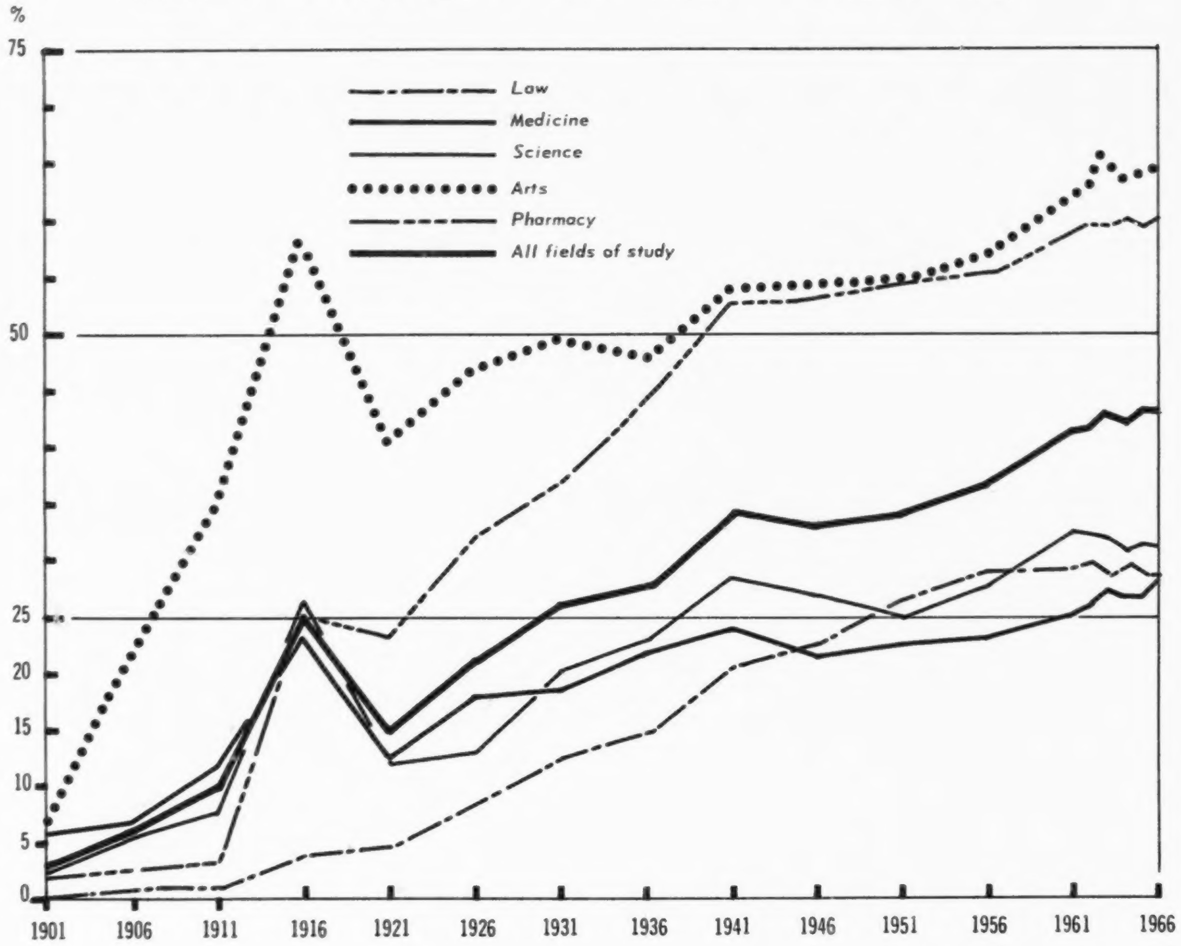


Table AI–5. DISTRIBUTION OF STUDENTS IN THE FACULTIES AND UNIVERSITY COLLEGES IN 1961–62 AND 1965–66

Academy	Faculty or college	Year	Law	Medicine	Science	Arts
Aix-Marseille	Aix	1962	2,138			5,053
		1966	3,638			8,104
	Marseille	1962		1,834	5,788	
		1966		2,962	8,536	
	Avignon	1962				
		1966			244	421
Amiens	Amiens	1962	86	180	409	
		1966	471	244	1,027	794
	St-Quentin	1962				
		1966			102	
Besançon	Besançon	1962		231	1,140	1,826
		1966	712	182	1,879	2,511
Bordeaux	Bordeaux	1962	1,510	2,481	3,294	3,825
		1966	3,570	3,646	4,459	6,959
	Pau	1962	236		279	371
		1966	760		691	972
Caen	Caen	1962	708	338	1,947	
		1966	1,412	362	2,565	
	Le Mans	1962			74	
		1966	470		495	286
Clermont	Clermont	1962	597	570	1,989	1,776
		1966	1,445	588	3,107	3,316
Dijon	Dijon	1962	1,048	260	1,352	1,775
		1966	2,055	231	2,384	2,980
Grenoble	Grenoble	1962	1,472	308	4,410	3,497
		1966	2,259	513	6,266	5,656
	Chambéry	1962			195	212
		1966			274	302
Lille	Lille	1962	1,350	1,431	4,085	3,829
		1966	3,378	2,254	6,294	6,060
	Calais	1966			68	
	Valenciennes	1966			200	
Limoges	Limoges	1962	230	225	295	
		1966	630	210	858	
Lyon	Lyon	1962	2,029	2,405	4,805	3,844
		1966	3,653	3,885	8,062	6,983
	St- Etienne	1966	513		422	622
Montpellier	Montpellier	1962	1,704	2,695	3,324	3,682
		1966	2,950	3,285	4,503	6,614
	Perpignan	1962			182	174
		1966	260		359	332
Nancy	Nancy	1962	1,248	1,281	2,795	2,404
		1966	2,048	2,002	3,722	4,386
Nantes	Nantes	1962	307	708	798	1,018
		1966	1,140	878	2,461	2,451
	Angers	1962		252		
		1966		226	328	
Nice	Nice	1962	731		171	906
		1966	2,100		1,444	2,643
Orléans	Orléans	1966	379		1,063	573
	Tours	1962	288	526	208	281
		1966	657	609	641	2,079

Table AI–5. (cont'd)

Academy	Faculty or colleges	Year	Law	Medicine	Science	Arts
Paris	Paris	1962	16,344	11,036	18,185	23,633
		1966	30,060	13,582	26,995	32,898
	Orsay	1962			2,983	
		1966			6,891	
	Nanterre	1966				5,237
Poitiers	Poitiers	1962	860	203	1,736	2,519
		1966	1,834	210	2,423	4,109
Reims	Reims	1962		315	808	
		1966		283	1,853	116
Rennes	Rennes	1962	1,163	888	3,243	2,628
		1966	2,563	892	3,656	4,677
	Brest	1962			418	397
		1966			1,420	1,341
	Rouen	1962	387	408	613	612
		1966	1,104	384	1,547	1,970
Strasbourg	Strasbourg	1962	1,866	1,591	2,837	2,737
		1966	3,365	1,904	3,681	4,545
	Metz	1962			220	354
		1966			416	489
	Mulhouse	1966			453	276
Toulouse	Toulouse	1962	1,670	1,435	6,217	4,040
		1966	3,078	2,266	9,731	7,754

Annex II

CONTENT OF THE REFORMS

Annex II

CONTENT OF THE REFORMS

The reforms proposed for the Faculties of Arts and Science under Ministerial Decree No. 66,411 and No. 66,412 of 22nd June 1966, institute a curriculum and courses of study that perpetuate in the new organisational chart the parallelism which already characterized the organisation of studies in the two Faculties.*

In these two Faculties, the reform replaces a system of certificates (four or six certificates, according to the subject, made up a "licence") to which had been added, since 1948, a preparatory year called "propédeutique" (CELG in arts, SPCN or MPC in science) by a system in which this preparatory year is suppressed and which comprises:

a) a first two-year course in which specialized instruction leads to end-of-year examinations (the university diploma of literary studies, (DUEL) is obtained at the end of the first course in arts and the university diploma of scientific studies (DUES) in science);

b) a second course leading after one year's study to the *licence* (implying that two certificates have been obtained) or after two years of study to the "maîtrise" which can be obtained with either four certificates or two certificates and a dissertation;

c) from the third course onwards, the organisation of studies, training for research or the preparation of competitive examinations for the recruitment of secondary school teachers remain *unchanged* (the CAPES can be prepared after the "licence" has been obtained).

In short: the main changes introduced are the suppression of the propédeutique, the organisation of the first course by years of study and the institution of the "maîtrise".

Below are two organisational charts which set out the new system of studies in the Faculties of Arts and Science.

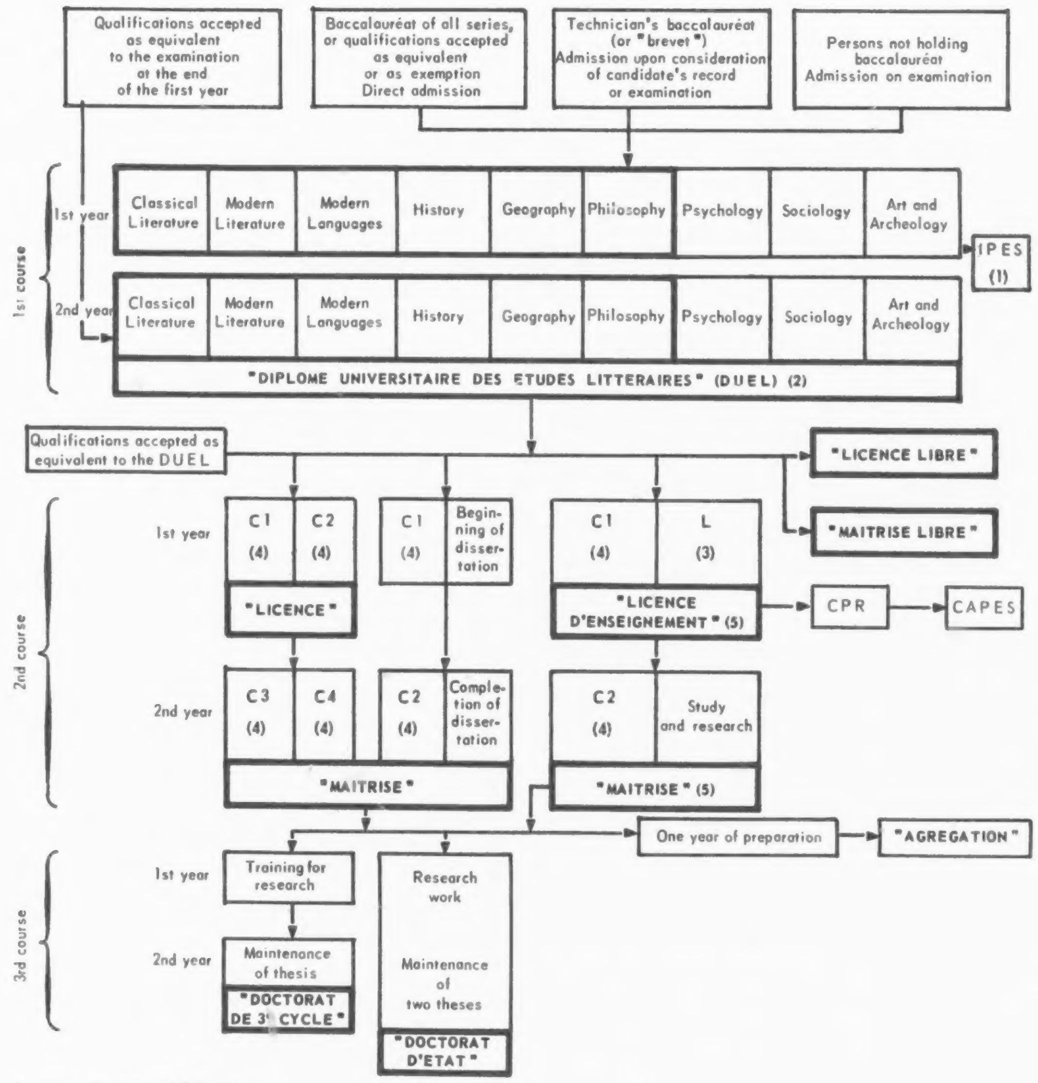
---

* If necessary, this would provide further proof of the superficial nature of the reorganisation: for many years all observers have been denouncing the homogeneity which French higher education tends to maintain in its various branches despite the fact that research and teaching activities in the Faculties of Arts and Science would call for different orientations.

Organisational Chart 1

NEW SYSTEM OF STUDIES

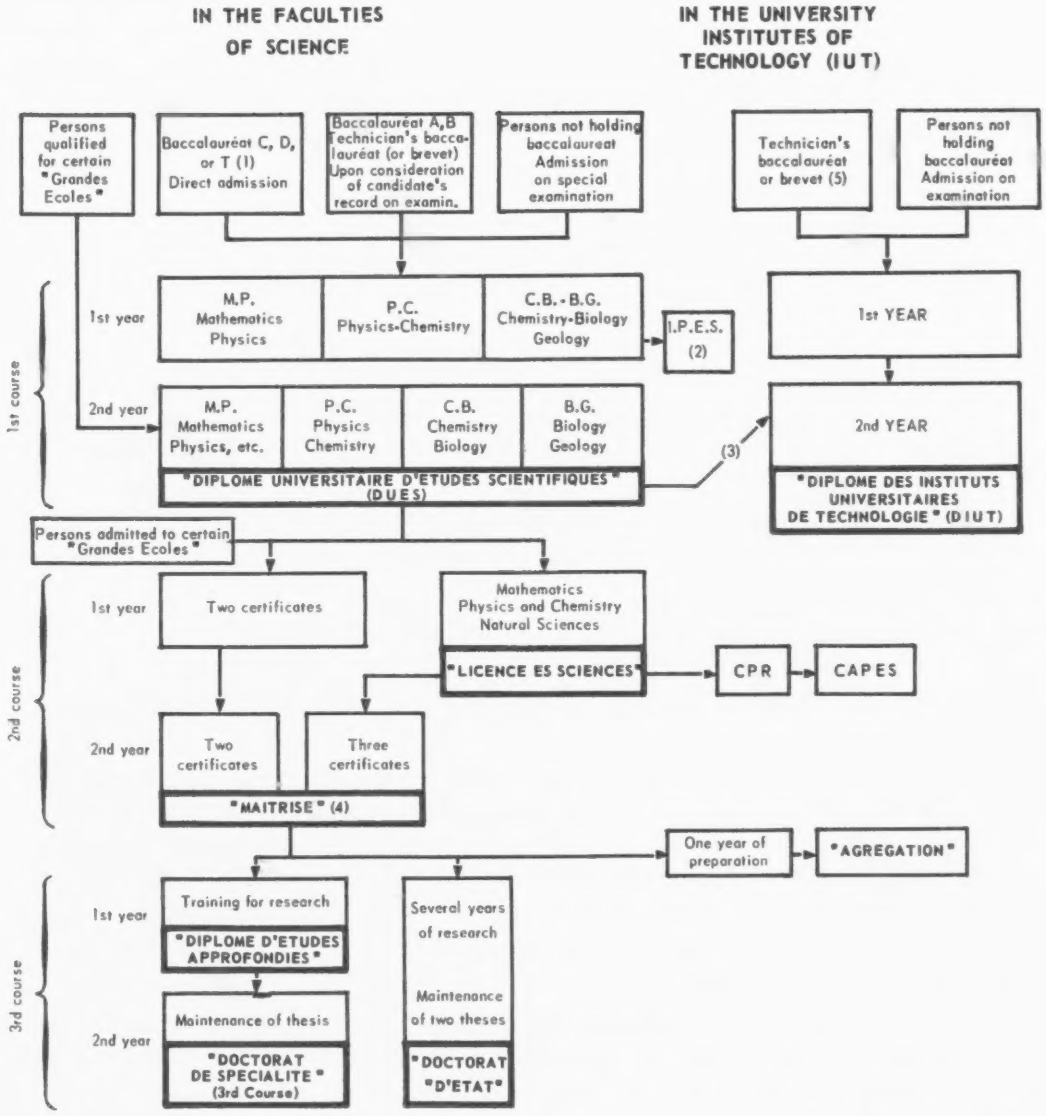
IN THE FACULTIES OF ARTS AND HUMAN SCIENCES


Qualifications accepted as equivalent to the examination at the end of the first year
Baccalauréat of all series, or qualifications accepted as equivalent or as exemption Direct admission
Technician's baccalauréat (or "brevet") Admission upon consideration of candidate's record or examination
Persons not holding baccalauréat Admission on examination
1st course
1st year
2nd year
Classical Literature
Modern Literature
Modern Languages
History
Geography
Philosophy
Psychology
Sociology
Art and Archeology
IPES (1)
"DIPLOME UNIVERSITAIRE DES ETUDES LITTERAIRES" (DUEL) (2)
Qualifications accepted as equivalent to the DUEL
"LICENCE LIBRE"
"MAITRISE LIBRE"
2nd course
1st year
C1 (4)
C2 (4)
"LICENCE"
C1 (4)
Beginning of dissertation
C1 (4)
L (3)
"LICENCE D'ENSEIGNEMENT" (5)
CPR
CAPES
2nd year
C3 (4)
C4 (4)
"MAITRISE"
C2 (4)
Completion of dissertation
C2 (4)
Study and research
"MAITRISE" (5)
One year of preparation
"AGREGATION"
3rd course
1st year
Training for research
Research work
2nd year
Maintenance of thesis
"DOCTORAT DE 3e CYCLE"
Maintenance of two theses
"DOCTORAT D'ETAT"

Source : Ministry of Education.

Organisational Chart 2

NEW SYSTEM OF STUDIES


IN THE FACULTIES OF SCIENCE
IN THE UNIVERSITY INSTITUTES OF TECHNOLOGY (IUT)
Persons qualified for certain "Grandes Ecoles"
Baccalauréat C, D, or T (1) Direct admission
Baccalauréat A,B Technician's baccalauréat (or brevet) Upon consideration of candidate's record on examin.
Persons not holding baccalaureat Admission on special examination
Technician's baccalauréat or brevet (5)
Persons not holding baccalauréat Admission on examination
1st course
1st year
M.P. Mathematics Physics
P.C. Physics-Chemistry
C.B. - B.G. Chemistry-Biology Geology
I.P.E.S. (2)
1st YEAR
2nd year
M.P. Mathematics Physics, etc.
P.C. Physics Chemistry
C.B. Chemistry Biology
B.G. Biology Geology
"DIPLOME UNIVERSITAIRE D'ETUDES SCIENTIFIQUES" (DUES)
(3)
2nd YEAR
"DIPLOME DES INSTITUTS UNIVERSITAIRES DE TECHNOLOGIE" (DIUT)
Persons admitted to certain "Grandes Ecoles"
2nd course
1st year
Two certificates
Mathematics Physics and Chemistry Natural Sciences
"LICENCE ES SCIENCES"
CPR
CAPES
2nd year
Two certificates
Three certificates
"MAITRISE" (4)
One year of preparation
"AGREGATION"
3rd course
1st year
Training for research
"DIPLOME D'ETUDES APPROFONDIES"
Several years of research
2nd year
Maintenance of thesis
"DOCTORAT DE SPECIALITE" (3rd Course)
Maintenance of two theses
"DOCTORAT "D'ETAT"

Source : Ministry of Education.

Notes on organisational Chart 1

1. The examination for passing from first to second year would be combined with the competitive entrance examination for the Instituts de Préparation aux Enseignements du Second Degré (IPES). After obtaining the DUEL, IPES students would go on to the " licence d'enseignement " year. (Some of them might, after obtaining the " licence " begin studying for the " maîtrise ").

2. The philosophy, sociology and psychology courses are in part common to the philosophy, sociology and psychology sections. Projects now under consideration will allow students to transfer from Faculty courses to the IUT and vice versa.

3. L : " Licence " Certificate.

4. C : " Maîtrise " Certificate;
C1: First Certificate;
C2: Second Certificate;
C3: Third Certificate;
C4: Fourth Certificate.

5. The sections leading to the " licence d'enseignement " are: Classical Literature, Modern Literature, Modern Foreign Languages, History, Geography and Philosophy.

Possession of a " licence d'enseignement " is a compulsory requirements for access to the " maîtrise " in one of these disciplines.

Notes on organisation Chart 2

1. Beginning of the academic year 1966: all series of the Baccalauréat qualify for Faculty entrance.

Beginning of the academic year 1967: the Elementary Mathematics Series, or the Mathematics and Technical Series of the Baccalauréat will be required for the MP and PC sections; the Elementary Mathematics Series, the Mathematics and Technical Series and the Experimental Science Series of the Baccalauréat will be required for the CB and BG sections.

Beginning of the academic year 1968 and thereafter: the new CD or T Baccalauréat will be required.

2. The examination for passing from first to second year is combined with the competitive entrance examination for the Instituts de Préparation aux Enseignements du Second Degré (IPES). After obtaining the DUES, IPES students will go on to the " licence " year. (Some of them will be authorized to study for the " maîtrise ").

3. Holders of the DUES entering a University Institute of Technology would follow a one-year course adapted to their level leading to an IUT Diploma.

4. Twelve types of " maîtrise " are planned: mathematics, data processing, mechanics, physics, chemistry, chemistry/physics, biochemistry, genetics, physiology, animal biology, plant biology, geology.

5. The entrance requirements for Baccalauréat holders will be laid down by Order for each specialization.

Instruction will probably be provided in the following specializations: civil engineering, mechanical engineering, energetics, electronics and automation, chemistry, laboratory methodology, applied biology.

*

* *

While the reform of the Faculties of Arts and Science is mainly concerned with the reorganisation of the *curriculum*, the reforms in Law and Medicine modify not only the curriculum but also the content and methods of education.

In Law, the Decree of 27th March and the Order of 29th December 1954, extended the length of the course from three to four years and introduced compulsory practical training. *The creation of the "Licence" in economics under the Decree of 17th August 1959, is the main feature of the reform.* After a common first year, law and economics students specialize in their second year at the end of which they take either the "Diplôme d'Etudes Juridiques Générales (law) or the "Diplôme d'Etudes Economiques Générales" (economics). In each case the appropriate "licence" is obtained at the end of the fourth year (see organisational Chart 3).

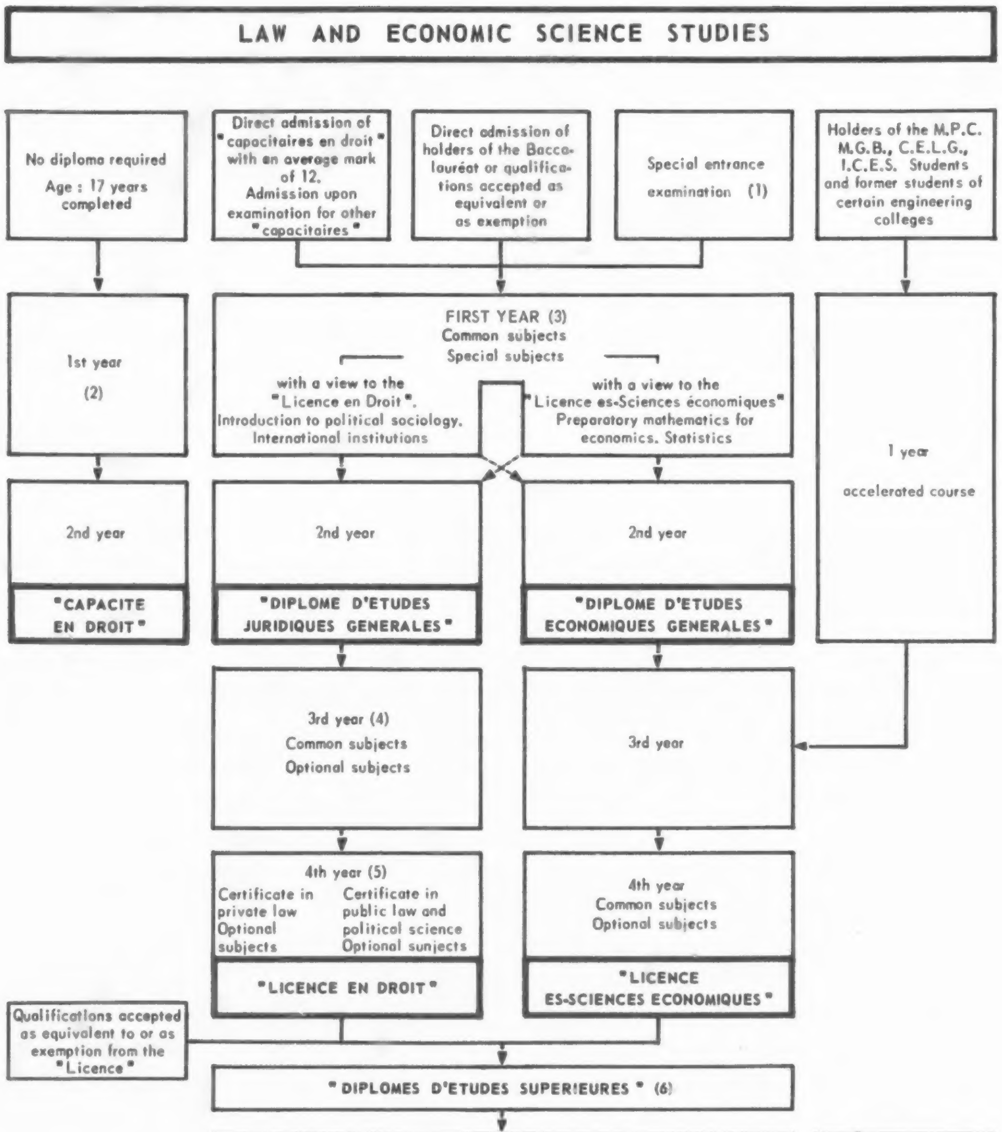
In Medicine, the reform has certainly led to changes in the curriculum, frequently contradictory ones; for instance, the length of the course was reduced to six years, and then raised again to seven years; in 1960 the PCB (examination ending a preparatory year of physics, chemistry and biology) was abolished, but a certificate of preparation for medical studies (CPEM) was introduced by a Decree of 24th August 1963. As has been seen however the broad lines of the reform of medical studies had already been laid down as a whole by the Ordinance of 30th December 1958. The main features are:

— *The organisation of university hospital centres* (CHU), which are set up on the basis of an agreement between a regional hospital centre (CHR) and a Faculty (or School) of Medicine.

— *The participation of all students in hospital life.* As a rule, all students start in the second half of their second year to perform the duties formerly incumbent upon non-resident students only; i.e. helping with diagnosis and treatment, stand-by duty, etc.; nevertheless, only the students with the best marks obtain the title of *extern* (non-resident status). The competitive examination to qualify as intern is maintained in its traditional form; externs take it in the year after they take up duty and may sit in all CHU's in the territory; thus the examination now follows a national timetable.

At the same time innovations have been introduced into the instruction provided; while *practical* training remains unchanged, *clinical* training now involves periods of assignment to the various services. *Integrated* training has been added to the traditional theoretical training; in connection with a particular "case", specialists (in medicine, but also administrative personnel or welfare workers) explain to the students the scientific, social or economic aspects of the disease. The most important innovation is no doubt the introduction of *supervised* training; this is provided by the heads of clinical

Organisational Chart 3


LAW AND ECONOMIC SCIENCE STUDIES
No diploma required
Age : 17 years completed
Direct admission of "capacitaires en droit" with an average mark of 12.
Admission upon examination for other "capacitaires"
Direct admission of holders of the Baccalauréat or qualifications accepted as equivalent or as exemption
Special entrance examination (1)
Holders of the M.P.C. M.G.B., C.E.L.G., I.C.E.S. Students and former students of certain engineering colleges
1st year
(2)
FIRST YEAR (3)
Common subjects
Special subjects
with a view to the "Licence en Droit".
Introduction to political sociology.
International institutions
with a view to the "Licence es-Sciences économiques"
Preparatory mathematics for economics. Statistics
1 year
accelerated course
2nd year
2nd year
2nd year
"CAPACITE EN DROIT"
"DIPLOME D'ETUDES JURIDIQUES GENERALES"
"DIPLOME D'ETUDES ECONOMIQUES GENERALES"
3rd year (4)
Common subjects
Optional subjects
3rd year
4th year (5)
Certificate in private law
Optional subjects
Certificate in public law and political science
Optional sunjects
4th year
Common subjects
Optional subjects
"LICENCE EN DROIT"
"LICENCE ES-SCIENCES ECONOMIQUES"
Qualifications accepted as equivalent to or as exemption from the "Licence"
"DIPLOMES D'ETUDES SUPERIEURES" (6)
"DOCTORAT D'ETAT" (7)
"AGREGATION" (8)

November 1966

services to small groups of students and consists in reviewing, commenting and extending the knowledge acquired.

Notes on organisation Chart 3

1. Candidates between 21 and 25 years of age may take the special Faculty entrance examination, provided they have not taken the Baccalauréat or the probative examination (under the old system) in the course of the three previous years. No conditions are imposed on candidates over 25.

2. First and second year "capacity" courses are held in the evening.

3. Each year of study ends with an examination in compulsory subjects and optional subjects. At the end of the fourth year of the law "Licence", the student sits for an examination for the certificate in private law or in public law and political science (according to the option selected) and an examination in the special subjects of his choice.

Theoretical instruction is supplemented by compulsory supervised work. Only one repeat is allowed in the first two years, either in the first year or the second year.

4. From the third year of the "Licence" onwards, students can prepare in one or two years various diplomas awarded by the Faculties of Law and Economic Science or such establishments as the Centre Supérieur d'Etudes Notariales, the Institut des Sciences Sociales du Travail, the Institut National des Techniques Economiques et Comptables, etc.

5. Persons holding certain qualifications or diplomas are exempted from the second part of the fourth-year examination (the examination on optional subjects).

6. Graduates may continue their studies with a view to obtaining a "Doctorat d'Etat". They study first for a "Diplôme d'Etudes Supérieures" (DES). As a rule, the law graduate prepares one of the following DES: history of law and social events, private law, criminal law, public law, political science, while the economic science graduate prepares the DES in economic science.

7. Holders of a DES are allowed to maintain a thesis for a "Doctorat d'Etat". The nature of the DES determines the nature of the Doctorate. Doctorates are awarded in the following subjects:

- law (history of law and social affairs, private law, criminal law, public law);
- political science;
- economics.

There is also a "Doctorat de spécialité (3rd cycle)" and a "Doctorat d'Université" reserved for foreigners.

8. The "Doctorat d'Etat" and the "Agrégation" qualify their holders for teaching appointments in the Faculties of Law, (possession of a second DES is a compulsory requirement for the "Agrégation").

OECD SALES AGENTS
DÉPOSITAIRES DES PUBLICATIONS DE L'OCDE

ARGENTINE - ARGENTINE
Éditorial Sudamericana S.A.,
Humberto 1^{o} 545, BUENOS AIRES.

AUSTRALIA - AUSTRALIE
B.C.N. Agencies Pty, Ltd.,
178 Collins Street, MELBOURNE, 3000.

AUSTRIA - AUTRICHE
Gerold & Co., Graben 31, WIEN 1.
Sub-Agent : GRAZ : Buchhandlung Jos. A. Kienreich,
Sackstrasse 6.

BELGIUM - BELGIQUE
Librairie des Sciences
Coudenberg 76-78, B 1000 BRUXELLES.
Standaard Wetenschappelijke Uitgeverij
Belgiëlei 147, ANVERS.

CANADA
INFORMATION CANADA
OTTAWA - CANADA

DENMARK - DANEMARK
Munksgaard Boghandel, Ltd., Nörregade 6
KOBENHAVN K.

FINLAND - FINLANDE
Akateeminen Kirjakauppa, Keskuskatu 2,
HELSINKI.

FORMOSA - FORMOSE
Books and Scientific Supplies Services, Ltd.
P.O.B. 83, TAIPEI,
TAIWAN.

FRANCE
Bureau des Publications de l'OCDE
2 rue André-Pascal, 75 PARIS 16^{e}
Principaux sous-dépositaires :
PARIS : Presses Universitaires de France,
49 bd Saint-Michel, 5^{e}
Sciences Politiques (Lib.). 30 rue Saint-Guillaume, 7^{e}
13 AIX-EN-PROVENCE : Librairie de l'Université.
38 GRENOBLE : Arthaud.
67 STRASBOURG : Berger-Levrault.

GERMANY - ALLEMAGNE
Deutscher Bundes-Verlag G.m.b.H.
Postfach 9380, 53 BONN.
Sub-Agents : BERLIN 62 : Elwert & Meurer.
HAMBURG : Reuter-Klöckner: und in den
massgebenden Buchhandlungen Deutschlands.

GREECE - GRECE
Librairie Kauffmann, 28, rue du Stade,
ATHÈNES-132.
Librairie Internationale Jean Mihalopoulos
33, rue Sainte-Sophie, THESSALONIKI.

ICELAND - ISLANDE
Snæbjörn Jónsson & Co., h.f., Hafnarstræti 9,
P.O. Box 1131, REYKJAVIK.

INDIA - INDE
Oxford Book and Stationery Co. :
NEW DELHI, Scindia House.
CALCUTTA, 17 Park Street.

IRELAND - IRLANDE
Eason & Son, 40-41 Lower O'Connell Street,
P.O.B. 42 DUBLIN 1.

ISRAEL
Emmanuel Brown,
35 Allenby Road, and 48 Nahlath Benjamin St.,
TEL-AVIV.

ITALY - ITALIE
Libreria Commissionaria Sansoni
Via Lamarmora 45, 50 121 FIRENZE.
Piazza Montecitorio 121, 00186 ROMA.
Sous-dépositaires :
Libreria Hoepli, Via Hoepli 5, 20 121 MILANO.
Libreria Lattes, Via Garibaldi 3, 10 122 TORINO.
La diffusione delle edizioni OCDE e inoltre assicurata dalle migliori librerie nelle città più importanti.

JAPAN - JAPON
Maruzen Company Ltd.,
6 Tori-Nichome Nihonbashi, TOKYO 103.
P.O.B. 5050, Tokyo International 100-31.

LEBANON - LIBAN
Redico
Immeuble Edison, Rue Bliss, B.P. 5641
BEYROUTH.

LUXEMBOURG
Librairie Paul Bruck, 22, Grand'Rue,
LUXEMBOURG.

MALTA - MALTE
Labour Book Shop, Workers' Memorial Building,
Old Bakery Street, VALETTA.

THE NETHERLANDS - PAYS-BAS
W.P. Van Stockum
Buitenhof 36, DEN HAAG.
Sub-Agents : AMSTERDAM C : Scheltema &
Holkema, N.V., Rokin 74-76. ROTTERDAM :
De Wester Boekhandel, Nieuwe Binnenweg 331.

NEW ZEALAND - NOUVELLE-ZELANDE
Government Printing Office,
Mulgrave Street (Private Bag), WELLINGTON
and Government Bookshops at
AUCKLAND (P.O.B. 5344)
CHRISTCHURCH (P.O.B. 1721)
HAMILTON (P.O.B. 857)
DUNEDIN (P.O.B. 1104).

NORWAY - NORVEGE
A/S Bokhjörnet, Akersgt. 41, OSLO 1.

PAKISTAN
Mirza Book Agency, 65, Shahrah Quaid-E-Azam,
LAHORE 3.

PORTUGAL
Livraria Portugal, Rua do Carmo 70, LISBOA.

SPAIN - ESPAGNE
Mundi Prensa, Castelló 37, MADRID 1.
Libreria Bastinos de José Bosch, Pelayo 52,
BARCELONA 1.

SWEDEN - SUEDE
Fritzes, Kungl. Hovbokhandel,
Fredsgatan 2, STOCKHOLM 16.

SWITZERLAND - SUISSE
Librairie Payot, 6, rue Grenus, 1211 GENÈVE, 11
et à LAUSANNE, NEUCHATEL, VEVEY,
MONTREUX, BERNE, BALE, ZURICH.

TURKEY - TURQUIE
Librairie Hachette, 469 Istiklal Caddesi, Beyoglu,
ISTANBUL et 12 Ziya Gókalp Caddesi, ANKARA.

UNITED KINGDOM - ROYAUME-UNI
H.M. Stationery Office, P.O. Box 569, LONDON
S.E.1.
Branches at : EDINBURGH, BIRMINGHAM,
BRISTOL, MANCHESTER, CARDIFF,
BELFAST.

UNITED STATES OF AMERICA
OECD Publications Center, Suite 1207,
1750 Pennsylvania Ave, N.W.
WASHINGTON, D.C. 20006. Tél. : (202) 298-8755.

VENEZUELA
Libreria del Este, Avda. F. Miranda, 52,
Edificio Galipan, CARACAS.

YUGOSLAVIA - YOUGOSLAVIE
Jugoslovenska Knjiga, Terazije 27, P.O.B. 36,
BEOGRAD.

Les commandes provenant de pays où l'OCDE n'a pas encore désigné de dépositaire
peuvent être adressées à :
OCDE, Bureau des Publications, 2 rue André-Pascal, 75 Paris 16^{e}
Orders and inquiries from countries where sales agents have not yet been appointed may be sent to
OECD, Publications Office, 2 rue André-Pascal, 75 Paris 16^{e}